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ORIGINAL LECTURES.

CLINICAL LECTURE

ON IDIOPATHIC PYELITIS AND RHEUMATISM.

Delivered at the Philadelphia Hospital

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IDIOPATHIC PYELITIS.

GENTLEMEN,—The appearance of this patient indicates that he is suffering from some condition which has seriously depressed his vitality. His eyes are sunken, his face is wasted, and his whole body is thinner than is natural with him. Inquiring into his history, we find that during the past three or four months he has been subject to occasional chills, followed by flushes and sweating. Since admission into the hospital his temperature has ranged between 99° and 101°. These symptoms would at once suggest that there is a centre of suppuration in his body. As a matter of fact, its location was speedily decided by an examination of the urine. On standing, the urine threw down a white deposit, which, upon microscopical examination, proved to be pus. The reaction of the urine was acid. These points would suggest the existence of pyelitis.

The diagnosis of pyuria is comparatively easy, although the exact cause of the pyuria is often obscure. In the first place, let me give you the special points that would indicate that the pus was formed in the kidney rather than in the bladder, and then I shall speak of the causes of pyelitis. When pus originates in the pelvis of the kidney, it will in all probability be passed mixed with urine, which will preserve its normal reaction, being either neutral or acid. On microscopical examination, the pus-cells will probably be found not associated with many of the epithelial cells of the genito-urinary tract. Let me here call attention to a point which is of some consequence where the pyelitis is recent: it is that the pus-cells are usually round in what we might call the physiological type. An unfavorable deduction is always to be drawn if the pus-cells are irregularly shaped.

In this case we have the ordinary pus-cells, giving us the idea that the cause of the formation of pus is recent. Such signs would indicate simple pyelitis. But suppose that associated with pyelitis there was a suppurative process going on in the kidney, what would be the evidence of such process? Probably the formation of a few casts, as a rule accompanied by some renal epithelium. Such appearances, indicating involvement of the kidney-substance, are quite important to recognize in connection with pyelitis. The points which would indicate that the pus came from the bladder would be the following: pus from the bladder is usually mixed with the epithelial cells of the bladder, and it is also mixed with mucus, for in cystitis there is a formation of a large quantity of mucus. Further than this, the reaction of the urine will probably be alkaline. This alkalinity is produced by the presence of volatile alkali, such as ammonia, which is characteristic of the alkalinity due to cystitis. The ammonium carbonate is developed in the bladder by fermentation of the urine, which is brought about either by the presence of bacterial organisms or by the formation of a ferment in the bladder. The presence of this volatile alkali is shown by the existence of crystals of ammonio-magnesian phosphate. In addition, the urine will be passed frequently, and its passage will be attended with pain. There will also be in such cases a constant desire to urinate. This man has not had these symptoms.

There is one other point to which it may be well to allude, although it does not strictly come up in this connection: that is, the recognition of pus in the urine from the prostatic portion of the urethra. It seems to me that the most reasonable way of estimating the source of the pus is by separating the urine into two portions, having the patient pass the first portion into one vessel and the remainder into another. If the pus comes from prostatic disease it will be found in the first portion, while the second portion will be free from pus. In other respects the urine of prostatitis has the same general characteristics as the urine of cystitis.

Although a study of this case makes it

probable that the pus originates in the pelvis of the kidney, I am sorry to say that we are unable to detect a definite cause for the pyelitis.

Inflammation of the pelvis of the kidney is in very many cases, perhaps in the majority, due to extension of inflammation from the bladder, and this is brought about by enlarged prostate, by stricture, by cystitis following urethritis, or some inflammation of the lower genito-urinary passages. In other words, it is a secondary affection. Examination of our patient shows that he is entirely free from any of these predisposing causes of pyelitis. It is next most commonly due to some irritation of the pelvis from the presence of a stone. Such collections are usually made up of uric acid or oxalic acid. The best means of determining the presence of such formations is by examining the urine and recognizing the existence of an undue proportion of uric or oxalic acid. These are not present in this case.

Let me refer to the pain of which this patient has complained. He has had a great deal of pain over the lumbar region. Taking into consideration the pain, the emaciation, and fever, together with the fact that two weeks ago I showed a case of abscess of the liver opening in the lumbar region, I thought there was an urgent necessity of examining the hepatic region in order to determine whether or not there was any suppurative process in progress. Abscess of the liver is often latent, and, as in the case I referred to, it may be complicated with cystitis. We eliminated the probability of the pain being due to abscess of the liver by the fact that, under rest and treatment directed to the pyelitis, the pain has almost entirely disappeared, and, further, the liver is apparently perfectly normal, as examined by physical diagnosis. Abscess of the liver would certainly be attended with enlargement of the organ. The pain from pyelitis due to the presence of a stone is very severe and lancinating in character, but at times it will disappear. It will also often be attended with the escape of a little blood, from the irritation of the pelvis by a spicula of the stone. Blood has never been passed by this patient, and there are no signs to make the existence of stone probable.

Pyelitis sometimes occurs in connection with certain blood-poisons, such as the fevers, but he has suffered from none of these. It is sometimes due to pressure upon the ureter by a tumor in the abdominal cavity; but there is no evidence of such a tumor here, nor is there any history of traumatism.

Having considered all the different causes of pyelitis, I am forced to conclude that this is a case of idiopathic character, possibly due to cold, although I am reluctant to admit the influence of cold as a cause of pyelitis.

The treatment is, of course, rather unsatisfactory, since it is difficult to affect this portion of the genito-urinary tract without acting upon the general system. Pyelitis is an extremely obstinate affection, and is apt to cause irritation of the kidney, leading to the formation of what is known as surgical kidney, followed by hectic and general blood-poisoning. The treatment is unsatisfactory because, after pyelitis has continued some time, there is, either from thickening of the pelvis of the kidney or the development of a stone, retention of urine, and pressure is brought to bear upon the kidney, leading to the formation of cystic kidney or causing surgical kidney. The patient is then apt to succumb from general exhaustion.

Where the disease is amenable to treatment, the best results are secured by the use of milk-diet. This gives a small amount of organic matter to be passed out through the kidney, and consequently the urine is non-irritating. That may be put down as the first element of treatment.

The second is to administer such remedies as will produce an alkaline state of the urine. On the whole, I think a combination of phosphate of sodium, bicarbonate of potassium, and some preparation of lithium is best calculated to produce this result. The following may be administered:

℞ Sodii phosphatis, gr. xxx;
Potassii bicarb., ʒj;
Lithii carbonatis, gr. v vel xv. M.

This may be given in a glass of water once or twice a day. It will render the urine alkaline and will not affect the digestion.

In addition to this, it is advisable to employ some preparation intended to act on the pelvis of the kidney as a slight stimulant. The oil of sandalwood has been recommended under these circum-

stances, but I have never derived a great deal of benefit from it. This, however, gives us the line of treatment to be aimed at. Some stimulant diuretic should be administered. The oil of sandalwood or the oleoresin of cubebs may be given. There is another remedy which sometimes seems to have a decided effect upon the mucous membranes: this is boric acid. Boric acid and potassium bromide, in emulsion with oleoresin of cubebs, constitutes an admirable treatment. During convalescence some preparation of iron is to be cautiously used to restore the crasis of the blood. This may be given in the form of Basham's mixture.

In considering this subject there is another matter to be referred to. Is this condition likely to cause abscess around the kidney? Is any direct treatment of the pyelitis possible? Operative treatment in pyelitis—that is, where there has been no stone—is not considered admissible by surgeons; but in these days, when so much is attempted in surgery, if the condition of pyelitis has been caused by a calculus, operative measures have frequently been adopted for the relief of this condition. Persistent pyelitis can produce sufficient irritation in certain cases to develop perinephritic abscess. This should always be remembered as a possible complication. The persistent pain in the back which was complained of in this case led me to examine carefully for the existence of perinephritic abscess, but no signs of this condition were detected.

RHEUMATISM.

I have two cases of rheumatism which I now desire to show you. This first case presents some special features of interest. You observe this peculiar claw-shaped contraction of the hands, which is bilateral. There is also an almost total loss of the electrical reactions in the extensor muscles on both sides. Looking at the joints, we might at first sight think that he was suffering with rheumatoid arthritis, but examination of the joint shows that there is nothing of the kind. A peculiar pear-shaped alteration of the joints of the fingers observed in rheumatoid arthritis is absent. Nor is there the characteristic alteration in the cartilages. The deformity of the hands is due to the excessive action of the flexors of the forearm, as opposed to the extensors, which are atrophied.

Rheumatism is ordinarily considered to be a blood-disease connected with some alteration of the crasis of the blood. This idea is true in so far that there is alteration of the crasis of the blood in rheumatism; but there are certain points which show that rheumatism is a possibly nervous affection, and that the alteration in the blood is a secondary condition. Rheumatism is a disease that comes on suddenly, and often goes away as quickly as it came. Our second patient came in one week ago, with a temperature of 102°, and suffering with pain in the joints, the right arm and the right leg being most markedly involved. To-day he is almost entirely free from pain, and the temperature is normal. In this case the affection appeared suddenly in one or two joints, and has rapidly disappeared under treatment. I shall show you in a few minutes that the treatment is directed more especially to the nervous system. Another fact pointing to the nervous origin of rheumatism is its tendency to fly around from one joint to another. This would not be likely if the disease were a blood-poison. In this man, D., we have a clear history of rheumatism affecting both wrist-joints and associated with this peculiar change in the muscles. In the *American Journal of Medical Sciences* there appeared, a number of years ago, an article on rheumatism as connected with changes in the spine, by Prof. J. K. Mitchell. He had observed that in a number of cases of Pott's disease symptoms of rheumatic inflammation of the joints appeared. Here we have a patient who has not Pott's disease, but he has bilateral atrophy of the muscles, with loss of electrical reactions: such changes as take place in chronic poliomyelitis. Since the affection is bilateral, it seems to me that the only reasonable deduction is that in this patient there has been some condition directly connected with the spine which has been responsible for this atrophy; and, in all probability, the lesion in the spine is responsible for the rheumatic symptoms. Time will not permit me to go extensively into this subject, but I wished to refer to these particular points because they bear so closely on the modern treatment of acute rheumatism.

When we come to treatment, we recog-

nize that we have a disease accompanied with severe pain, with high temperature, and localized inflammation in the joint. The modern treatment of rheumatism, as you well know, consists in the administration of some preparation of salicylic acid. This drug, when successful, relieves all the symptoms. It relieves the pain so speedily that it is evident that it does so through its effect on the nervous system. It lowers the temperature quickly. The high temperature in acute rheumatism, as in many other conditions, is an evidence of disturbance of the nervous system. Fever is, in all probability in the majority of cases, a neurosis. I think that Dr. Wood has abundantly shown that the application of heat directly to the brain, to the heart, and to certain portions of the nervous system is capable of producing all the phenomena of fever, —viz., increased circulation, nervous disturbance, and increased production of heat. The fever of rheumatism is probably quickly relieved because it has this neurosal origin. The physiological action of salicylic acid closely resembles that of quinine: it produces tinnitus in the ears, blindness, and so on. We therefore presume that it acts through the nervous system to subdue pain and lower temperature. It has been found better to combine the acid with an alkali. We give it in connection with sodium or ammonium because we recognize a change in the blood, which also is probably due to the same cause. The assimilative organs are affected by the disturbance of the nervous system, and the blood is therefore loaded with imperfectly-reduced albuminoids. These give rise to the formation of lactic acid and other derivatives of globulin, which are ordinarily eliminated in the form of uric acid and its combinations. Physiologically, these are elaborated into urates of soda and potassium. We therefore give salicylic acid in combination with sodium, ammonium, or potassium, to favor the elimination of these materials as urates. My favorite prescription is the following:

℞ Acidi salicylici, f℥j;
Ammonii carbonatis, gr. 1;
Syrupi et aquæ, q. s. ut ft. ℥ii. M.

This is to be taken in divided doses in the course of twenty-four hours. In this prescription we secure the stimulant effect of the ammonium carbonate and thus obviate the depressing effect of the salicylic acid upon the circulation. If the symptoms are not controlled in thirty-six hours, the amount administered in twenty-four hours may be increased to ninety grains. I never feel safe in going above this amount, but, if unsuccessful, resort to other plans of treatment.

Both these patients have been treated by salicylates. I have, however, another patient in the wards, in whom a good result has been brought about by the administration of twenty drops of oil of gaultheria every two hours for thirty-six hours. The remedy was continued in ten-drop doses every two hours for twenty-four hours longer.

From these considerations I think that we may conclude that the nervous element is the preponderating element, and that the blood-poison is secondary. There are many cases of rheumatism in which the disease is subacute or chronic and is not affected by this treatment. Under such circumstances we may infer that there has been so much accumulation of partially-reduced albuminoids in the blood, so much blood-poisoning, if we may use the term, that the crasis of the blood cannot be restored at once. Recognizing this, I never give salicylic acid without also giving something to render the urine alkaline, for we know that the uric-acid series of products will stand the best chance of being eliminated under such circumstances. For this purpose I give bicarbonate of potassium. This may be given in the form of a lemonade, or the citrate may be given in the same way, or, in the very chronic cases, in the combination of the phosphates with lithium already mentioned in the treatment of pyelitis. As soon as the urine is alkaline, the dose of the alkali should be reduced to such a point as will keep the urine in this condition. An injudicious persistence in the alkaline treatment tends to alter the crasis of the blood, and it is therefore advisable to use the tincture of the chloride of iron or other tonics in case an anæmic condition should supervene. These are the principles of treatment aside from diet, which, it is important to observe, should be of such character as will not supply the albuminoids in too great abundance, and should consist principally of milk, oat-meal, and similar substances. The patients will continue this regimen, and will be brought before you again in order to show you the results.

ORIGINAL COMMUNICATIONS.

REPORT ON OPHTHALMOLOGY.

BY ALBERT G. HEYL, M.D.,
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THE CASE OF HEINRICH HEINE.

HEINE, the famous German poet and critic, suffered during the later years of his life with a distressing cerebro-spinal disorder, which terminated fatally February 17, 1856. Mauthner has collocated the symptoms of his case, from which it appears that the cerebral affection was what is clinically known as nuclear paralysis. Beneath the floor of the fourth ventricle, about the aqueduct and in the adjoining part of the third ventricle, are a number of nuclei to which the nerves of the eye have been traced. When several of these nuclei become diseased we have the condition generally known as ophthalmoplegia or nuclear paralysis. The clinical history of this condition is well illustrated in this case of Heine, which is given in the form in which Mauthner presents it. The sequence of the symptoms, as will be observed, was as follows: Protracted headache, dating back some fifteen years previous to the first eye-symptoms, which were mydriasis and paralysis of accommodation. About eight years later, paralysis of the muscles of the eyeballs, with ptosis, the fifth pair also being involved. Then paralysis of deglutition, difficulty in breathing, paralysis of the jaw-movements, spinal spasms,—death, some thirty years after the inception of the disease.

In the year 1822, during his residence in Berlin, Heine suffered much from nervous headache, which steadily increased during the succeeding years. In the year 1831 Heine resided in France, and for a few years succeeding this date the headaches seem to have diminished in frequency and severity, as there are fewer references to them in his letters of this period. In autumn of 1837 mydriasis, with accommodation-paralysis, occurred. This disappeared after a time, but again recurred. In January, 1845, paralysis of the eye-muscles followed, so that there was paralysis of all the muscles of the eye, both exterior and interior. In the L. E. there was complete ptosis; in the R. E. partial ptosis. The sensitive parts of the trigeminus were also involved. "I kiss," wrote Heine, "but have no sensation with it, so strongly are my lips paralyzed. Also a part of the palate and tongue are affected, and all that I eat has an earthy taste." A little later: "The parts concerned in speech are so affected that I am unable to speak, and for four months I have been unable to eat, owing to the difficulty in chewing and swallowing and the loss of taste." In the spring of 1847 great difficulty in breathing set in. Finally there was paralysis of the jaw-movements, violent spinal spasms set in, the limbs wasted. The back became bowed, apparently from the muscular atrophy. In May, 1848, the patient was obliged to take to his bed, which he practically never left for the remaining eight years of his life. Dr. Gruby thus refers to his condition in 1849. "I found him destitute of all power of motion,—coiled, as it were, together,—the saliva dribbling from the mouth, and utterly unable to feed himself." Violent fits of suffocation developed in 1854–55. On February 17, 1856, he died during an attack of uncontrollable vomiting, possibly brought on by enormous doses of morphia, which had become necessary to him during the later years of his life. A remarkable feature of the case was that the intellect remained clear and bright through all this terrible sickness.—*Mauthner's Vortraege der Augenheilkunde.*

HEAT AS AN ANTISEPTIC IN OPHTHALMIC PRACTICE.

Birnbacher uses heat as an antiseptic in operating in the following manner. All the bandages that are to be used are placed, four hours before the operation, in a closed leaden box and introduced into an oven. In addition, two glass plates with glass covers, after having been washed with solution of corrosive sublimate and alcohol, are also placed in the oven. The air in the latter is then brought to a temperature of about 150° C. and kept there for two hours, and then gradually allowed to cool. Immediately before the operation the tin box is removed, placed on a glass plate, opened quickly, and covered with one of these glass covers, and kept there until the bandages are needed. All the instruments except those used for cutting-purposes are heated in the flame of a Bunsen burner, and laid on the second glass plate and covered with a glass cover. To allow of the heating, the hook, spoon, spatula, and Treber's loop are made of

platinum, and screwed into the ivory handles. The various forceps have the lower third made of platinum. The various eye-drops (cocaine, eserine, atropine) are also heated, the mouths of the vessels containing them being closed with sterilized cotton. The cutting-instruments are placed in absolute alcohol for an hour preceding the operation. After operation the parts about the eye are washed, first with soap, then with the sublimate solution (one to five thousand). Particular attention is paid to cleansing the edges of the lids.—*Centralblatt für Prakt. Augenheilkunde*, August, 1885.

[It is hardly likely that such a complicated method as described above would be maintained. It consumes too much time; and, furthermore, with the greatest care there could hardly fail to be some loop-hole for the entrance of micro-organisms. Aside from cleanliness, it seems probable that the true basis of antisepsis is that of getting the tissues operated on in such a state that if a micro-organism settles in the wound it will find no favorable soil for growth and propagation; and heat properly applied conduces to this end.]

TUMOR OF THE OPTIC NERVE.

Vossius reports the following case. The patient, a servant-girl, æt. 19, had always seen well with each eye. Four days previous to her application for treatment her friends noticed that the left pupil was larger than the right. For a week she suffered with attacks of epistaxis, especially marked during the menstrual period. There was no history of syphilis. At the time of application there was no swelling or redness about the eyelids. The left eyeball was exophthalmic, and rotated downward and outward. The pupil was dilated (*übermittelweit*), did not react to incident light, but to accommodative effort and also to incident light on the other eye there was a slight reaction. The vision was eccentric; fingers counted at eight feet. There was choked disk; very much enlarged, tortuous veins, the tortuosity reaching to the periphery of the fundus. The retinal arteries were extremely narrow. The patient was kept under observation several weeks, during which the vision steadily decreased; the choked disk passed into the stage of atrophy. A year later the eye was completely amaurotic, the exophthalmos was greater. The eyeball with a tumor posterior to it was at this time removed. The tumor proved to be a myxo-sarcoma, extending from the scleral end of the optic nerve to the optic foramen. It was thirty-seven millimetres in length. The outer sheath of the nerve was intact, the inner sheath, the intervaginal tissue, and the interstitial tissue of the optic nerve, but especially the first, being involved in the abnormal process. The optic-nerve fibres, for the most part, were completely disintegrated or atrophied. In other places intact fibres could be traced. Macroscopically, no signs of the nerve-trunk could be detected in the longitudinal section of the tumor.—*Berlin. Klin. Wochenschrift*, March 30, 1885.

COCAINE-INTOXICATION.

Mayerhausen reports the following case of cocaine-intoxication from a collyrium. The patient was a girl, æt. 12, who had injured one cornea by a steel pen. The injury had been followed by a deep discoloration of the cornea. To enable this discoloration to be scratched away, the eye was put under the influence of cocaine by dropping four times, at intervals of about five minutes, one or two drops of a two-per-cent. solution of cocaine (Merck's). During the operation about every five minutes the solution was used, so that about fifteen drops altogether were instilled. Immediately after rising from the operation-table the patient complained of headache, considerable nausea, but no vomiting. There was anorexia for the rest of the day, listlessness, unsteady gait, dulness of mind. These symptoms gradually subsided, it being something more than twenty-four hours before they completely disappeared.—*Klinische Monatsblätter*, June, 1885.

STATISTICS OF ATROPINE-POISONING.

Feddersen (Diss. Inaug., Berlin, 1885) says that there are one hundred and three cases of poisoning from atropine on record, twelve of which were followed by death. Undoubtedly many unrecorded cases have occurred. Of these one hundred and three cases (to which Feddersen adds one of his own, brought about by an atropine salve and followed by recovery), ninety-eight were from prescriptions ordered for internal use, fifty-three from collyria. In nine cases it was given to destroy life (*giftmord*); in ten it was taken with suicidal

intent; eighty-four were accidental. In the cases due to collyria the strength of the solution varied from .17 to three per cent. —*Centralblatt für Augenheilkunde.*

[Hirshberg comments thus on the above: "I have never yet seen a case of atropine-poisoning from the use of collyria." The reviewer has seen decided reddening of the skin ensue, with the milder symptoms of atropine-action, after the use of what purported to be a four-grain solution of atropia. The solution had just been prepared, and it was supposed that the symptoms were due to some susceptibility of the patient. The solution was used once more in another case, and analogous symptoms were developed, possibly not so decided. In neither of these cases were the symptoms toxic, as they required no treatment, but the general symptoms were marked. There can be little doubt but that a stronger solution than gr. iv to f℥j had been inadvertently dispensed.—H.]

VESICLE OF THE CORNEA.

Dimmer describes the following case. The patient—a woman, æt. 30—had received, nine days before applying for treatment, an injury to the left eye from lime. At the time of application for treatment the left cornea was superficially, but over its whole surface, clouded. There was ciliary and conjunctival injection. Atropine was applied and the eye bandaged. Two days later the patient presented herself. The cornea was found to be covered with a large vesicle filled with bloody serum. Instances of the formation of vesicles after burns are on record, but they are rare. A case of Mayerhausen's in which the vesicle was filled with blood, and also a similar one described by Schmidt Rimpler, seem to belong to this category. —*Klinische Monatsblätter*, July, 1885.

PERIODICALLY-RECURRING OCULO-MOTOR PARALYSIS.

P. J. Möbius reports the following: A child, æt. 6, had five attacks of total oculo-motor paralysis of the right eye. The attacks occurred at intervals of a year; began with continuous vomiting and violent pains about the eye; lasted, as a rule, eight to ten weeks, when the paralytic symptoms, with the exception of the mydriasis, disappeared. The vomiting before the occurrence of the paralysis lasted eight days, the violent eye-pain fourteen days. The author thinks the cause to be a palpable lesion, which underwent periodical tissue-change. If located near the oculo-motor nucleus the violent eye-pain would be accounted for, as the origin of the descending root of the fifth is near this point. —*Centralblatt für die Med. Wissenschaft.*, 1885, No. 5.

INFLUENCE OF CONCAVE GLASSES AND AXIS CONVERGENCE ON THE PROGRESSION OF MYOPIA.

Förster refers to the well-known connection between continuous use of the eyes at a short object-distance and the progression of myopia. Two hypotheses exist:

1. The tensor hypothesis, in which the contraction of the tensor choroideæ is supposed to be the cause of the progression.

2. The convergence hypothesis, in which the increased convergence is the cause.

Förster discards the first, for the form of the eyeball depends on the sclera, and how can the tensor choroideæ induce any change in its shape? Further, were the tensor at fault the myopia would cease after a time to progress, but this does not always happen. All these contradictions cease when we turn to other hypotheses. Förster has observed often that myopics who have worn from youth up pure fully-correcting or even over-correcting glasses never have felt it necessary to change their glasses. This is again contrary to the tensor hypothesis.

The true method, then, of treating myopia is the use of means to prevent too strong convergence, such as the constant wearing of concave glasses. In high grades the use of not fully-correcting glasses is often permissible, but they must be combined with abducting prisms.—*Centralblatt für die Med. Wissenschaft.*, 1885, No. 13.

Dr. W. W. Seely contributes the following upon this subject. Dobrowolsky having asserted that in cases where there is no binocular vision there is no effort at convergence, Seely combats this with the following case. A young lady had a strong divergent strabismus due to a large corneal macula. The other eye was slightly hypermetropic. In spite of efforts at correction, the patient still complained of difficulty in the use of the eyes. For cosmetic purposes, the corneal cloud was tattooed and the right internus advanced. After the operation the patient could read without sense of weariness, and also did not require the correcting-glass for the other eye. In this

case there was absence of binocular vision, and yet the patient was constantly making effort at convergence. Hence the loss of the binocular vision does not indicate that the convergence-instinct has also disappeared. Further, many cases of progressive myopia can only be prevented from advancing by the aid of prismatic glasses. The *rationale* of the treatment of such cases is to aid the diminished convergence-power, which is the main cause of the increased accommodation-effort.—*Klinische Monatsblätter*, June, 1885.

REFRACTION OF THE HUMAN EYE.

Dr. B. A. Randall contributes a critical study based upon the examinations made by different authors, especially among school-children. The various results are tabulated, and thus made of great use to any one interested in this subject.

The following inferences are deduced from them by Dr. Randall:

1. Myopia is almost unknown in infancy, and very infrequent before the period of school-life.

2. Hypermetropia is the enormously-preponderating condition in infancy and early childhood.

3. Astigmatism has been rarely sought with care, and the present data afford no definite conclusions.

4. Emmetropia, in a mathematically-strict sense, has probably no existence.

5. The question of what is normal refraction of the human eye is still an open one.

SOME PRACTICAL SUGGESTIONS IN ELECTRO-DIAGNOSIS AND TREATMENT.

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IN the diagnosis and treatment of nervous diseases both a galvanic and a faradic battery are indispensable, and the advice given to students to employ only a faradic battery, as if it answered all purposes, is incorrect and absurd. Both currents are necessary to give one an intelligent opinion of the condition of paralyzed muscles and nerves. In all cases of paralysis an examination is incomplete—more than that, very imperfect—unless you have obtained the electrical condition of the paralyzed parts. In examining a muscle or nerve, place either one of the poles at an indifferent point, over either the sternum or the spine; the former position being preferred, as the patient can hold the electrode in place. If examining a nerve, the other electrode is placed over the nerve at a point where it is most superficial; if a muscle, over its motor point,—the point where the nerve supplying the muscle is supposed to enter,—then note the strength of current required to produce a slight contraction. When it is desired to reverse the poles, as is necessary in the galvanic current, a mechanical contrivance called a commutator or pole-changer is used, which does away with the necessity of lifting the electrodes. This method of examination applies to both currents. Given a case of paralysis, you wish to supplement your examination with an electrical condition of the parts. First examine all paralyzed muscles and nerves with the faradic current, placing the electrodes as previously mentioned. Then ascertain the strength of current required to produce a minimum contraction, and thus you compare the various muscles paralyzed, recording the result for future reference. In most faradic machines the cathode or negative pole is the stronger, and should generally be applied to the diseased parts. If there be no response to the faradic current, the galvanic should be used, applying one pole to an indifferent point, the other over the nerve or muscle, opening and closing the current by an electrode having an interrupting handle,—the preferable way above all other fancy contrivances,—and noting the strength of the current needed to produce a minimum contraction, then compare the degree of contraction of the different poles. When there is normal faradic response there is also an accompanying normal galvanic response, which gives the following formula when the current is opened and closed and the poles reversed,—that is, placing one pole, the anode or positive, on the sternum, the cathode or negative over the nerve, and noting the degree of contraction from a minimum current; then reverse the poles, which places the cathode on the sternum and the anode on the nerve, and interrupting the current: cacc>anoc>ancc>caoc. Examining a healthy muscle in a similar way, the formula is: cacc>ancc>anoc>caoc.

These are the normal muscle- and nerve-reactions to the galvanic current, and almost always can be obtained when the

faradic response is normal or nearly so. But where there is no response to the faradic current there is generally a response to the galvanic, giving a reversal of the normal formula. When a nerve is examined we have: ancc>cacc>anoc>caoc. If the muscle, we have: ancc>cacc>anoc>caoc. The opening contractions are rarely obtained, as the strength of current required is too painful. These formulæ show a condition of partial degeneration, and are called by Erb the reactions of degeneration. One will not always find the order here stated, as sometimes in the muscle-formula we have ancc = cacc, or in the nerve ancc = cacc, both showing a lesser degree of degeneration; but in most cases where the faradic response is absent, there are generally the reactions of degeneration, or there is no response to either current.

There is a prevalent opinion among medical men that if in cases of paralysis one obtains a fair farado-muscular contractility it excludes the spinal cord as the seat of the disease, and places it in the brain. This is a mistake, as certain spinal-cord diseases —*e.g.*, primary lateral sclerosis—give a normal faradic response, or even exaggerated reaction. In all paralyses due to diseases of the brain the electrical reactions are only quantitatively changed, either slightly lessened or exaggerated, but never wholly lost. Even in cases of years' standing there is some response to both currents. Diseases of the spinal cord involving the trophic centres, such as infantile and adult spinal paralysis and acute muscular atrophy, having the seat of their lesions in the anterior horns of the gray matter, usually give in recent cases diminished or lost faradic response, in older cases completely lost faradic response, and either no response to galvanism or the reactions of degeneration. This is especially the case in infantile and adult spinal paralysis and peripheral palsy. In recent cases of infantile paralysis involving the lower limbs I have found that the anterior tibial group of muscles, especially the anterior tibial muscle, was the first to lose faradic contractility. In fact, in all cases of infantile paralysis of the lower limbs either the anterior tibial or extensor communis digitorum muscle is implicated. In acute muscular atrophy, as long as some muscular fibre is left an electrical response is obtained; in advanced cases there is no reaction. In all other spinal-cord diseases, as lateral-column sclerosis (spastic spinal paraplegia), secondary degeneration of the same columns following disease of the brain in the motor tract, post-spinal sclerosis (locomotor ataxia), spinal meningitis, and in the earlier stages of diffused myelitis, there is either normal, slightly diminished, or exaggerated electrical response. If in these diseases you have added atrophy and lost faradic response, then the spinal lesion has encroached on the gray matter of the anterior horns. So it is well to remember, if in long-standing paralysis you obtain fair electrical response to both currents, the seat of the disease is either cerebral or in the lateral or posterior columns of the cord. When there is no faradic response, and the galvanic current shows the degeneration reactions, the cause must be either peripheral or in certain parts of the spinal cord,—the gray matter of the anterior horns.

Let us suppose a case (as Dr. Amidon has in his excellent little work on electro-therapeutics) of paralysis of the extensors of the wrist of several months' standing. The electrodes of the faradic battery are applied, one on the sternum, the other over the musculo-spiral nerve as it winds around the humerus. If normal response is obtained, you must have one of three conditions: either paralysis of cerebral or hysterical origin, or the subject is feigning. If the reactions are exaggerated, it is more likely to be due to cerebral disease. If the farado-contractility is slightly diminished, then it is probably a non-destructive spinal or peripheral lesion. When there is no response to the faradic current, however strong, there must be a destructive lesion in the motor cells of the anterior gray horns, or the musculo-spiral nerve is itself diseased. The same remarks apply to the application of the faradic current to the muscles supplied by this nerve. When the reaction to the faradic current is lost to the galvanic current you generally obtain a perversion of the normal formula, or the reactions of degeneration: that is, instead of having in the nerve cacc> anoc>ancc>caoc, you have anoc>cacc >anoc>cacc. In the muscle, instead of having the normal muscle formula, cacc> ancc>anoc>caoc, you have ancc>cacc >anoc>caoc. This condition shows that the paralysis is either due to a destructive lesion in the motor-spinal cells of the anterior gray horns, or the nerve itself is

degenerated. In the latter electrical condition the diagnosis must be either lead-palsy, antero-poliomyelitis, or injury to the peripheral nerve by compression, etc.; the further history of the case generally aids you in making your decision. When no response is obtained to either current, the causes remain the same, only existing in a greater degree, leading to complete destruction of the spinal or peripheral motor tract.

The electrical condition of individual diseases may be tersely stated as follows. In locomotor ataxia there is normal farado-contractility, with markedly diminished electro-sensibility, especially of the lower third of the inferior limbs. In spastic spinal paralysis there is normal or exaggerated farado-contractility, with normal electro-sensibility. In infantile spinal and adult spinal paralysis, in recent cases greatly diminished or lost farado-contractility; in older cases lost farado-contractility and the reactions of degeneration appear; or, in very old cases, there is no response to either current. In children the two diseases, infantile spinal paralysis and spastic spinal paralysis, at a glance seem very much alike, and often reputable medical men mistake the latter for the former. The electrical reactions will unerringly guide you. In infantile paralysis (antero-poliomyelitis) there is no faradic contractility, but you have the reactions of degeneration or no response to either current. In spinal spastic paralysis (acquired, congenital, or secondary sclerosis of the lateral columns of the cord) there is slightly exaggerated reaction to both currents, with heightened patellar reflex. This differential diagnosis is very important, as the two diseases require different treatment. In progressive muscular atrophy there is faradic contractility as long as any muscular fibres remain; but when they reach a certain stage of degeneration the response to the galvanic current gives the reactions of degeneration. In other diseases of the cord, such as inflammation of the membrane or the cord proper, hemorrhage, concussion, injury, compression, etc., the electrical reactions remain normal or exaggerated unless the motor cells of the anterior gray horns are involved or the peripheral nerves as they leave the cord are compressed or severed. In the latter case there will be, after a time, degeneration reactions or complete loss of electrical irritability. Peripheral palsies, such as are due to compression, contusion, rheumatism, etc., in the beginning present only slightly diminished farado-contractility; later, lost faradic contractility; and if no improvement sets in, the degeneration reactions appear, or all electrical response is lost.

In examining for electro-sensibility, the metallic brush is used with the rapidly-interrupted faradic current. In the treatment of paralysis by electricity only a few general principles can be given. When muscles and nerves respond fairly to the faradic current, apply this form with slow interruptions. Séances of five minutes' duration should be given three times a week, at the same time observing that each muscle should be gently contracted a dozen times or more. Above all, avoid currents which produce violent contractions, or harm is liable to follow. In such cases, having heightened electrical irritability with increased tendon reflex, use electricity sparingly to the muscles. In those diseases where no faradic response is obtained, use the interrupted galvanic current, applying the pole to the muscle giving the greater contraction to the minimum current. In long-standing cases, where the muscles and nerves refuse to respond to either current, the prognosis is unfavorable. I have given such cases patient trials with electricity, and have not accomplished any good. All forms of acute paralysis should be of four to six weeks' standing before any electrical treatment should be instituted. Never overtreat paralyzed limbs by electricity. A good rule which I use was suggested to me by an accident. A man was struck on the shoulder, contusing the circumflex nerve and causing paralysis and atrophy of the deltoid muscle. When I first saw him the muscle gave the reactions of degeneration. I applied for many months the interrupted galvanic current without any improvement. He was suddenly called away, and had to remain without treatment for three months. On his return I found the deltoid muscle nearly restored, the shoulder having its natural rotundity, and a fair faradic response was obtained. My plan is to apply the current about two months; then let the parts rest one month, in which time the patient is to carry out massage; then begin another two months of treatment, followed by a month of rest.

Cases thus treated do much better than those treated continuously for many months without any interruption.

In conclusion, I wish to state that cases of infantile paralysis (antero-poliomyelitis) which present the reactions of degeneration *are* benefited by persistent electrical treatment. I have at present two cases in which, after a year or more of careful attention, I have had good results. If, in old cases presenting these reactions, you have no improvement after eighteen months' treatment, it is probably useless to try any further.

1531 North Seventeenth Street.

"A SEA CHANGE."

BY HORATIO R. STORER, M.D.,

President of the Newport Medical Society, and one of the consulting Surgeons of the Newport Hospital; Ex Vice-President of the American Medical Association.

IT is known to many of the profession that, since returning from the last five of thus far nearly eight years in Europe, I have been studying the adaptability of Newport, Rhode Island, as a general health-station for invalids, similar to those abroad which are recognized as such by American as well as by foreign physicians. Evidence upon this subject I foreshadowed in the *Virginia Medical Monthly* for April, 1879, and have already given in the *Sanitarian* (New York) for January 11, 18, and 25, and February 8, 1883, the *Boston Medical and Surgical Journal* for March 22 and 26, and the *New York Medical Record* for December 22 of the same year. In accordance, however, with a restriction that I had placed upon myself three years previously to the last of these dates, in 1880, I have refrained till now from any decided action towards developing in a professional direction the remarkable hygienic influences of the island.

At the time mentioned I stated, in a communication to the American Public Health Association, that, "though the natural conditions of the place are favorable for health and longevity, I should decline to recommend it (for delicate persons) until there existed a proper system of sewerage; until the soil-water (raised by an artificial public supply) was reduced to at least its natural level; until there were hydrants for fire and general sanitary purposes; until the old cesspools were filled in or removed; until the real estate agents furnished evidence that the houses they offer to strangers are safe to live in; and, over and above all, until there was a board of health-officials who would care for these and other sanitary matters systematically" ("Transactions of the American Public Health Association," vol. vi. p. 216).

During the intervening period the measures thus indicated as essentials have been almost all attained. Newport has now an efficient Board of Health, three members of which are physicians. It has adopted a general plan of sewerage, the main features of which are being rapidly carried out. In proportion as this is done, the level of the ground-water is being lowered and damp cellars made dry. Public hydrants are everywhere. The cesspools and privy-vaults are disappearing. One of the leading real estate firms refuses to lease houses of the better class unless possessing the certificate of the Sanitary Protection Association; and, most recent of all, a mayor and city government have just been elected who are in sympathy with the advances insisted upon by the Association named and by the Newport Medical Society.

Being accordingly free again to express my candid opinion regarding the intrinsic hygienic features of this "American Isle of Wight," I have no hesitation in saying to my medical friends, and the profession generally, that it is worth their while to investigate, personally, if possible, the advantages of Newport as the temporary or prolonged residence of invalids (both medical and surgical, even "hopeless" cases) and convalescents. In doing this I am not merely seeking a selfish end, for, having been appointed by the American Medical Association at its session at St. Louis in 1873 to investigate European health-stations in their relations to American invalids (my report having been rendered at the session in Louisville in 1875), I have felt since my return, a convalescent myself, that, in accordance with the true spirit of my instructions, I am now but pursuing their general subject still further. I will say, in addition, that there are a number of other physicians resident in Newport, members of its Medical Society and personal friends of my own, to whom I shall as gladly see patients from a distance intrusted as though they were sent to my own care. It is needless to add that immediate members of the families of physicians, as always hitherto, will be wel-

come to our best services without professional charge. Good board can be obtained at Newport outside the fashionable season, say from September to July, inclusive, at from six to twenty dollars per week.

The conditions at Newport may be thus briefly stated. Its climate is distinctly insular, to a great extent oceanic, being materially affected by the Gulf Stream, and milder than that of the coast-line, even where this is but a very few miles distant. The seasons are markedly prolonged into each other. The atmosphere, though moist, is decidedly saline. Rheumatism and the various nervous hyperasthenias are rare as here originating, and when brought are almost always relieved. Pneumonia, and even phthisis, save as here for treatment, are exceptional. The winters are comparatively mild, and though snow and ice are of course present for portions of each winter, it is to a much less extent and for a shorter period than upon the mainland. There are many patients who could be made comfortable here during winter who are now carried South, to their own inconvenience and that of their friends, or remain at home in much less favorable local climates.

I can only add that, should chronic cases of any kind, or convalescents, be confided to my charge, I will endeavor to carry out the wishes of the medical men to whom I may owe them. To accomplish this the more satisfactorily, I have associated with myself in practice Dr. W. Thornton Parker (Munich), late Acting Assistant-Surgeon, U.S.A., and together we shall do what we can to make Newport generally recognized, aside from all its social attractions, as a valuable therapeutic aid to the American medical profession.

NOTES OF HOSPITAL PRACTICE.

JEFFERSON MEDICAL COLLEGE HOSPITAL.

CLINIC OF JOHN H. BRINTON, M.D.,

Professor of Clinical Surgery, Jefferson Medical College.

EXCISION OF THE SCAPULA FOR SARCOMA.

GENTLEMEN,—The specimen which I present for your inspection is that of a tumor taken from a girl 11 years of age, upon whom you saw me operate at our last clinic. The growth involved the entire right scapula, and was the result of an injury received two years ago. At that time the child fell down a slope about seven feet, striking her scapula upon a projecting stone. There was a little temporary pain, but in an hour this had passed away, and the incident was forgotten. In April of this year she complained of some tenderness over the back of the shoulder, and about May a lump or swelling was noticed by the parents. This grew rapidly in size until, as I showed you at the last clinic, it measured fifteen inches in diameter and the shoulder was very prominent. The scapula also seemed to be thrust away from the side of the chest, and a hard lobulated mass could be felt deep in the axilla. With these local changes the constitutional condition of the child sympathized to a marked degree. The pain at times was very great, occurring at intervals during the day, and more constantly at night. Sleep became almost impossible, and of late could only be obtained by the free use of opiates. The child was evidently going down rapidly; the persistent suffering, the loss of rest, and the poisonous impression of the growth were wearing her out. There was no hope for her, save in an operation for the removal of the mass. After due consultation and reflection, I determined to attempt the extirpation of the growth, having first plainly set before the parents and the grandfather of the child the great peril of such an operation, and having explained to them the possibility of a speedily fatal result.

I accordingly excised the entire scapula in your presence four days ago. I then drew your attention to the care and caution employed in the administration of the ether, and to the efforts made, and successfully made, to prevent bleeding. So efficient were the exertions in this direction that, as you noticed, very little hemorrhage occurred. I do not think more than four or five ounces of blood were lost, the vessels having been perfectly temporarily constricted before being divided and tied. The command of the subclavian was also absolute. Yet, with all these precautions, the patient died about an hour after the completion of the operation. She had previously emerged from the influence of the anæsthetic, and had spoken rationally, and answered questions. The action of the heart, however, suddenly flagged, and death occurred despite active stimulation

and hypodermic medication. The death was one from surgical shock, and could not have been prevented.

Here is the growth: it is a lobulated, sarcomatous mass, involving the infraspinatus and subscapular fossæ, stretching but not infiltrating the muscles; the indurated axillary mass is a part of the subscapular growth. The overlying skin is healthy.

You are not likely to see many such cases,—this being only the second excision of the entire scapula for disease done in this city, to the best of my knowledge.

GONORRHŒAL EPIDIDYMITIS.

I brought a man before you at our last clinic suffering with gonorrhœal orchitis, and then told you that the term orchitis was not to be taken in the strict sense as inflammation of the testicle, for in many cases the epididymis only is involved. I now present to you James F., 26 years of age, with an enlarged testicle following an attack of gonorrhœa, who has epididymitis, not orchitis. This is very likely to occur in cases of gonorrhœa, and you find upon examining the testicle in such cases that the swelling is at first confined to the epididymis, involving the globus major or minor, or both, and you will detect a crescentic mass of induration (due to the inflamed epididymis), and in the cup-shaped depression rests the testicle. Subsequently the testicle may become inflamed, or an effusion occur into the tunica vaginalis, giving rise to great pain and hardness.

It is a fact worth noting that the pain is not necessarily felt in the testicle. This man complains of pain in his back, in the groin along the spermatic cord, and extending along the branches of the genito-crural nerve down the thigh, even down to the leg,—rather than in the testicle itself.

How shall you treat this affection? If a case of acute epididymitis come to you for treatment, you should direct the patient to lie down upon his back with the scrotum elevated, so as to drain the venous blood away; and cold applications of lead-water and laudanum may be made to the inflamed organ,—or they may be tepid if the patient cannot bear the cold. If the bowels are not open, give the man a dose of salts, Epsom or Rochelle, a teaspoonful each morning. If the pains are severe, opium may also be given; and if the inflammation is very marked, two or three ounces of blood may be taken by leeches. I know that it is said that leeches should not be applied to the scrotum, on account of the ecchymosis which they cause; but in such cases looks are of less importance than prompt relief. The lead-water will have to be washed off before the leeches will take hold. After the acute symptoms have passed, I am in the habit of applying mercurial ointment upon a piece of lint, with which the extract of belladonna may be incorporated in proportions up to one-half that of the mercury. This is to be applied fresh every morning; before doing which the scrotum is to be carefully washed off with warm water and soap, to get off the old ointment. Under this treatment the patient will usually get well in about two weeks, but there will generally remain a tell-tale button of induration in the globus minor. When you find this significant little witness, you need not test the patient's veracity too greatly by asking if he ever had gonorrhœa and an inflamed testicle.

The treatment of epididymitis, then, may be summed up as rest, support for the testicle, saline purgatives, leeches, and anodyne applications of lead-water and laudanum, with morphine internally if necessary. The diet should be restricted.

CASES OF EXOSTOSIS.

From this boy, at the last clinic, I excised a small ivory exostosis from the frontal bone over the right orbit. You remember that I had some difficulty in removing it, on account of its hardness; but I finally did so with a saw, and smoothed the surface with a rasp. Corrosive-sublimate (1–1000) dressings were applied, and the wound healed without suppuration. He is now well.

Here is a man from whom I removed an enchondromatous growth attached to the tendinous and fibrous structures of the first phalanx of the ring-finger, of slow development. I took away, from an incision along the palmar surface of the phalanx, a large quantity of loose material, and necessarily inflicted considerable injury. The wound was washed out with corrosive-sublimate solution, and the hand put upon a splint. There was no marked inflammation, and the motion in the neighboring joint is

good. Here is an important point: in all operations in the neighborhood of joints, you should insist upon early passive motion; otherwise you may get a stiff joint. Keep the joint in motion, in order to preserve its function.

ENCYSTED HYDROCELE OF THE CORD.

This infant, 4 months old, has an accumulation of fluid in the pouch of peritoneum which accompanied the testicle down into the scrotum, and which has had its canal obliterated above and below this point. The swelling was noticed shortly after birth, and has since increased in size.

This condition does not require much treatment. Cold applications of chloride of ammonium solution or of lead-water will favor its absorption; or it may be got rid of more rapidly by a few punctures with the needle. The irritation of the punctures will be sufficient to excite inflammation, and obliteration of the sac will perhaps follow.

INJURY OF ELBOW-JOINT BY A FALL.

This girl, 12 years of age, fell four weeks ago, and was supposed to have received a dislocation of the elbow-joint. The question is, Did she receive a dislocation? I have not yet examined it. Let me say that these cases require careful diagnosis. I will never risk my reputation by pronouncing upon a case like this without examining the patient under ether.

Is the head of the radius in its proper position? Many do not know how to find the head of the radius. Let me show you how to do it. In a normal arm, if you flex the elbow-joint, you can find the external condyle; then, by extending the forearm, you notice a pit or depression just below the condyle, marking the position of the head of the radius. Grasp the joint so that your thumb rests upon the external condyle, and then, flexing the forearm, let the thumb slip down into the depression, where it will detect the rotation beneath it of the head of the radius when the hand is pronated and supinated.

Applying the test here (the patient being anæsthetized), I find the head of the radius in position, and it rotates as I pronate the hand. I find some crepitation, due to adhesions which have formed during these four weeks. The motions of extreme flexion and extension are resisted by these adhesions in the joint, but there is no evidence of dislocation or of fracture involving the joint. This passive motion must be practised daily as soon as the effects of this manipulation shall have subsided under applications of lead-water and laudanum. The joint will be liable to be stiff for some time, and to prevent this she shall employ passive movements, massage, and exercise, such as carrying a coal-scuttle up and down stairs and boring holes in a piece of pine wood with a gimlet, every day.

CASES OF NECROSIS.

[Three cases of necrosis were shown, which did not require special comment or immediate operation.—REP.]

FISTULA OF THE ANUS.

Mr. S., 42 years of age, comes before us for treatment for fistula. I would define a fistula as a sinuous channel connecting internally with the cavity of the bowel and externally with the skin. Ordinarily commencing with ulceration of the mucous membrane in one of the pouches of the rectum, just within the sphincter ani muscle (which acts like the purse-string to a bag), the ulceration penetrates the submucous tissue and allows fluids to burrow downward through or by the side of the sphincter muscle. An abscess is thus formed which points externally, bursts, or is incised, and so remains permanently open. Several sinuses may thus be created, or the pus may travel upward and make a secondary opening into the rectum. In other cases, as the result of a kick, or a fall, or a blow, or from some other cause, an abscess may arise in the cellular tissue around the anus, and discharge itself externally, or internally into the rectum, or both.

Now, as to treatment, be careful to find the true or original internal opening. First introduce a flat-handled probe, such as this of Sir Benjamin Brodie, through both openings, with the aid of a finger introduced into the rectum. Remember, the internal opening is most usually just above the sphincter; if there is another one higher up, it is secondary. Follow the probe with a grooved director, the extremity of which is then brought outside the anus; the overlying ring of tissue is then cut by a bistoury along the grooved director, and the old fistulous track scraped with the handle of

the knife in order to remove the old, unhealthy granulations.

[Having performed the operation upon the patient, a compress dipped in carbolized oil was applied, covered with a towel, and the whole kept in place with a T-bandage.—REP.]

SCIRRHUS OF MAMMARY GLAND.

Mrs. Mary R., 45 years of age, comes from Delaware for an operation, and gives the following history. She menstruated at fourteen years of age, was married at twenty-five years, and has had two children. In the spring of 1881 her attention was first drawn to her right breast by shooting pains. Shortly afterwards she noticed a hard lump just above the nipple, which up to this time had been normal, and neither of the nipples had presented any signs of skin-disease. Afterwards the nipple became retracted and enlarged. Since April of this year the tumor has grown very rapidly, and has been more painful, more so at night than during the day, and worse during a storm. Now the breast is hard, lobulated, the superficial areolar glands are enlarged, the nipple is retracted, enlarged, and resembles a ripe strawberry. From around its ulcerated base exudes an offensive discharge. The patient's general health is good. The gland is beginning to be attached to the overlying skin. Some enlarged glands are found in the axilla.

Scirrhus is the form of carcinoma most frequently encountered in advanced life, and in married women the mammary gland is the most common site.

In this case nothing can be done except extirpation of the breast, which shall be removed with the overlying skin, the whole gland being included in two curvilinear incisions.

The instruments employed have been disinfected by immersion in a carbolic-acid solution, and the hands of the surgeon and his assistants are also washed, just prior to the operation, in a solution of corrosive sublimate.

[The operation was performed, and the diseased gland and axillary lymphatics removed, care being exercised to take out every indurated gland which could be detected in the axilla. A compress wet with corrosive sublimate was applied over the wound, after its edges had been approximated with the interrupted suture, and powdered with iodoform.—REP.]

TRANSLATIONS.

BROMHYDRATE OF QUININE.—Among the various preparations of quinine the bromhydrate has some characters which deserve special attention. It contains from seventy-five to seventy-six per cent. of quinine in a purer state than that entering into the sulphate; it is soluble in sixty parts of water; the solution is acid, and clear, but after a few days presents a greenish tint. Dr. Maximowitsch (*St. Petersburger Med. Woch.*, 1884) finds its sedative action of special value in fevers, and has employed it in acute pneumonia, typhoid fever, scarlatina, variola, phthisis, etc. After a hypodermic injection of from .60 to .90 (gr. x to xv), or one dose of from .60 to 1.20 (gr. x to xx) by the mouth, the temperature falls in grave cases from 0.4° to 0.8° (C.), and in light cases from 1° to 1.5° (C.), and the pulse is retarded 10 to 30 pulsations per minute. This improvement persists several hours, then the temperature increases again, while the pulse remains slow for two or three hours more. The patient becomes calm, sleeps quietly, and the delirium ceases.

In phthisis the bromhydrate of quinine has shown itself to be a useful antipyretic, especially when the patient cannot bear narcotics.

Its action in intermittents is like that of other salts of quinine, but it is especially valuable in malarial neuralgias. In one case of quotidian intermittent it proved efficacious in curing the patient, after the failure of sulphate of quinine and Fowler's solution. In cerebro-cardiac neuropathy and neurasthenia it was also used with success. Where anæmia is marked, it may be combined with the bromide of iron.—*La France Médicale.*

A NEW THERAPEUTIC METHOD: DIELECTROLYSIS.—At the meeting of the Academy of Medicine (Paris, September 22), Dr. A. Brondel read a communication with regard to the introduction of remedies into the system by means of electricity. The method is based upon the principle that if a current is made to pass through a saline solution the metal will go to the negative pole, and the metalloid, in certain salts, or the acid, goes to the positive pole. The salt is decomposed. It is this that Dr. Brondel has succeeded in conducting

through the animal organism, and to which he gives the name of dielectrolysis.

For iodine, which is easily dielectrolyzable, he applies upon the surface of the body a sheet of amadou wet in a solution of iodide of potassium, and above this sheet he places the negative pole of a pile, of which the positive is placed upon some other part of the body: the iodine then separates from the potassium at the negative pole and travels across the tissues towards the positive pole, where it soon appears, as is shown by a starch test-paper. This is a hypodermic method of medication without breaking the skin, and without pain.

Quite a number of simple bodies may be made to traverse the tissues in this way, and the applications of the new method may be very numerous and very important. Dr. Brondel claims to have thus cured uterine fibromata, a case of perimetritis, a rheumatic neuralgia of the ovaries, and several cases of chronic rheumatism.

Later investigations suggest applications to other diseased states: to parasitic and malignant tumors, skin-diseases, syphilis, neuralgia, etc., and especially pulmonary phthisis, where Dr. Brondel intends trying the action of different mineral antiseptics, such as arsenic, mercury, fluorine, which dielectrolysis will permit to penetrate the pulmonary tissue.—*La France Médicale.*

[This method of treatment can scarcely be considered novel. Priestley and others in the last century made experiments upon the electrolytic conduction of medicines through animal tissues, which were subsequently revised and extended by Klencke (1845), Hassenstein (1853), and Clemens (1860). Beer, of Vienna, in 1869, called especial attention to the electrolytic conduction of iodine in the manner above stated; but experiments made by Von Ziemssen, Brückner, and others proved the erroneousness of these views and the impossibility of obtaining the desired effects, owing to the resistance offered by the skin, and because it was found impracticable to conduct the iodine to great depths through complex animal tissues. The cataphoric effect obtained in Munk's experiments upon the galvanic introduction of different fluids into the uninjured human and animal organism, however, deserves more serious attention. Consult Ziemssen's "Hand-Book of General Therapeutics," vol. ii. page 388 *et seq.*—Ed.]

The Etiology of Tabes Dorsalis.—Dr. Belugon, in a communication to *Le Progrès Médical*, entitled "Recherches sur les Causes de l'Ataxie locomotrice progressive," concludes that:

1. No cause can be invoked as possessing the exclusive monopoly, or as being an element necessary to the production, of locomotor ataxia.

2. The etiological elements which seem to have the greatest importance in the pathogenesis are syphilis, nervous heredity, rheumatism, and functional abuse.

3. In nearly all of the cases, besides the other etiological circumstances, functional excess and nervous over-strain play an accessory *rôle*, and contribute in a more or less marked manner to the evolution of the disease.

4. The etiology of tabes may be formulated in the great majority of cases thus: In an individual possessing a nervous temperament, whether hereditary or acquired by functional abuse, or (as almost always happens) the first exaggerated by the second, together with an occasional cause,—accident, cold,—with, and nearly constantly, the localization of one of two diatheses, syphilitic or rheumatismal, it occurs in the spinal cord. Such is the common origin of progressive locomotor ataxia, according to the author.

Thalline.—Strongly resembling kairine, thalline belongs to the chinoline series, and technically is *tetrahydroparamethyl oxyquinoline*. On account of the green color which it produces when brought in contact with the chloride of iron, the name of thalline was proposed for it by Skraup, the discoverer of this agent. The salts employed in medicine are the sulphate and tartrate. The sulphate is very soluble in boiling water, and dissolves in five times its weight of cold water.

Jacksch, of Vienna, has shown that it lowers the temperature in comparatively small doses (twenty-five to thirty centigrammes), and without causing sweating. Dujardin-Beaumetz declares that thalline is the most powerful of antithermic agents, but on account of its destructive action upon hæmoglobin it should be used with caution, and only in relatively small doses, not exceeding twenty-five centigrammes (four grains).—*Bulletin de Thérapeutique*, August 30.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, OCTOBER 17, 1885.

EDITORIAL.

CELLS *VERSUS* BACTERIA.

WITH the completion of the centennial volume of his *Archiv* and the opening of a new series, Virchow discusses, in one of those keen, sharp reviews with which the readers of his journal are from time to time indulged, the burning question of the day: the battle of the cells and the bacteria. With the establishment of his journal, forty years ago, the great advance of organic chemistry had turned the minds of investigators in that direction, and it required no little courage to maintain the honor of biology; but the rapid progress in the knowledge of the minute structure of animals and plants finally led to the substitution of "*omnis cellula e cellulâ*" for Harvey's famous dictum, and placed the cell-theory of life and the cell-theory of disease on apparently sure foundations. More and more had we come to regard the ultimate histological elements of the tissues as the seat of the processes through which life is manifested. Nay, more! We had arrived at the conception of the cell as an *entity*, living its own special life and possessing a sort of individuality or personality. But now all seems changed. Micro-organisms have taken the front rank in medical interest, and "they rule the thoughts and the dreams of many old and almost all the young men." The cells are forgotten. An amusing extract is given from a Paris journal, in which are such sentences as "*La pathologie cellulaire a vécu*," "*à bas les cellules.*" Upon which Virchow comments, rather ironically, "The poor little cells! No wonder they cannot be seen by the men who use Abbe's condenser,—that most convenient bit of apparatus which permits only the microbes to appear in the field. But there they are, still the most important elements; and, as they are patient, their time will come again, after the physicians shall have filled up by their labors some gaps in botanical science."

An interesting sketch is given of the growth of our knowledge of parasitic fungi from the time of Bassi and Schönlein, and Virchow refers with pride to the many valuable communications on the subject which are to be found in his *Archiv.*

The problem in connection with diseases supposed to be due to micro-organisms is a threefold one: first, the discovery of the parasite; second, the demonstration of its life-history; and, third, the way in which it causes the disease. The controversy is on this last one; and just here we are brought back to the old pathology. Nowhere is this more clearly shown than in the history of phthisis. When Koch discovered the bacillus, there were those who behaved as if all the good work of the past had been useless. As the bacillus was a single entity, so was phthisis; lung-tuberculosis was only caseous hepatization, and gland-tuberculosis scrofula. "In spite of all, pulmonary tuberculosis remains a multiform process, which begins in many ways: sometimes in the mucous membrane of the bronchi, sometimes in the alveoli, and again in the lung-substance, and is accompanied by changes inflammatory as well as tuberculous, and whoever thinks to understand these must learn more than how to stain bacilli."

The battle is between the cells and the microbes,—*i.e.*, between living organisms. At present we know more of the activities and energies of the cells than of the bacteria. Of the great problems to be worked out, one is the relation of the tissue-elements to the various micro-organisms, and the other is the determination

of the distinction between the effects of these bodies and those of the substances they produce. The question of ptomaines has taught us how important the latter aspect is, and, curiously enough, the originally botanical problem becomes more and more a chemical one.

The veteran professor believes that we can still walk in the old ways, and that we need no readjustment of science to bring in the new facts.

THE HEALTH OF AMERICAN WOMEN.

THE question of whether or not a woman should learn the alphabet having by general consent been decided, in this country at least, very positively in the affirmative, the effect of a college course upon her physical health deserves and has received serious attention. The essay by Dr. Clarke on Sex in Education has had a good influence in indicating the only method in which her energies and efforts may be directed in obtaining her education with safety to her physical organism, and in showing incidentally that, if wisely controlled, college privileges may be enjoyed and utilized by women equally with men. Two years ago the Dean of the Women's Medical College of Philadelphia, after making inquiry among the alumnæ, ascertained that the health of the graduates of the school, far from being injured by their studies and mode of living, appeared to be really improved by the culture it entailed and the career of usefulness which had been opened to them. This really might have been anticipated if the criticism of Miss Martineau, that the feeble condition of American women was attributable to the vacuity of their minds, had any foundation in fact. Women are like men in being healthier and happier when pursuing some well-defined and worthy purpose in life.

From a recent investigation by the Massachusetts Bureau of Statistics of Labor it would even appear demonstrated that mental labor is better suited to women than physical. Certainly, at least, it seems established that there is nothing injurious to the health of women in a severe course of study. Of the twelve hundred and ninety women graduates of colleges in this country, seven hundred and five replied to the schedule of questions sent out by the Bureau; and, as these are the first detailed statistics concerning the health of this class of American women, their replies afford information upon several points of interest. From them it appears that seventy-eight per cent. were in good health upon entering college, at the average age of 18.35 years; in two per cent. health was fair, and in twenty it was poor. Deterioration in physical health during the course was observed in 19.58 per cent., amelioration during the same period in 21.13 per cent., the difference being 1.55 per cent. in favor of the college course. The most prevalent cause of disorder among those who studied severely during college life was constitutional weakness. Thirty cases of cerebral affections were reported, and twelve of eye-trouble; possibly some of the cases reported as brain-disorder belonged properly to the latter group. In conclusion, the Bureau of Statistics states that "the facts which we have presented would seem to warrant the assertion that the seeking of a college education on the part of women does not in itself necessarily entail a loss of health or serious impairment of the vital forces. Indeed, the tables show this so conclusively that there is little need, were it within our province, for extended discussion on the subject. The graduates, as a body, entered college in good health, passed through the course prescribed without material change in health, and, since graduation, by reason of the effort to gain a higher education do not seem to have become unfitted to meet the responsibilities, or bear their proportionate share of the burdens, of life."

The *Nation*, in commenting upon this, justly remarks that "Americans have not yet attained the robustness and vigorous color of the parent race, but they can no longer be regarded as a nation of invalids. The fragile and chalky young ladies who were in fashion twenty years ago have given place to young women of clear, bright color and healthy, vigorous step; the hollow-chested ministers and the lean and sallow business-men of a former day have passed away, never, let us hope, to return." Among the immediate causes of this improvement we would award a high rank to the persistent and disinterested teaching of the members of the medical profession, both men and women, notwithstanding the apparent intimation on the part of the *Nation* that the latter are chiefly "engaged in swelling the death-rate."

THE MICROCOCCUS OF GONORRHŒA.

RECENT investigations have led Kreis (*Wien. Med. Wochenschr.*, Nos. 30, 31, and 32, 1885) to the conclusion that the micrococcus first described by Neisser as being always present in gonorrhœal pus is the infective agent in transmitting this disease. Kreis made pure cultures of the gonococcus on a culture-medium composed of agar-agar and meat peptone. Exposure to a temperature of 35°–40° C. (95°–104° F.) was required for free development of the organism. When the temperature was raised to 50° C. (122° F.), there was no development of the micrococcus. This pretty nearly corresponds to the results of Sternberg's investigations into the thermal death-point of various micrococci and other sporeless organisms. Kreis also found that no development occurred in an alkaline culture-medium.

A large number of germicide agents were tried in order to determine the proportion necessary for the destruction of the vitality of the gonococcus. The following were found effective in the proportions mentioned: silver nitrate, .5–1 per cent.; cupric sulphate, platinum chloride, each 1 per cent.; thymol, 1 : 1100.

A number of inoculations of pure cultures upon inferior animals (rabbits and dogs) resulted negatively. In view of the negative results of Sternberg's inoculations of pure cultures upon human subjects, this might have been expected.

These observations of Kreis and of other investigators appear to show that: 1, a micrococcus having peculiar characters is always present in gonorrhœal pus; 2, a temperature of 50° C. (122° F.) and above will prevent the development of this micrococcus, but not necessarily destroy its vitality; 3, a one-per-cent. solution of silver nitrate, cupric sulphate, or platinum chloride, or a one-tenth-per-cent. solution of thymol (more accurately, 1 : 1100) will destroy the life of the organism; 4, pure cultures of the gonococcus are not inoculable upon man or the lower animals.

Although doubts have been thrown upon the specific character of the gonococcus, yet these need not prevent the testing of the practical conclusions drawn from Kreis's paper that the use of hot-water injections (50° C. = 122° F.) is indicated to restrain development of the organisms; and that one of the above-mentioned germicide solutions should be used by injection to destroy the infectivity of the virus. Preceding the use of the germicide, Kreis suggests an injection of a cocaine solution into the urethra to obviate the pain.

Although his culture-experiments failed to demonstrate the germicide action of chloride of lime, Kreis has found this agent, in one- to two-per-cent. solutions, effective in rapidly curing the disease.

DR. E. O. SHAKESPEARE has been appointed by his Honor President Cleveland a special commissioner to visit Spain

and to report to the State Department upon the recent epidemic and its sanitary lessons. Dr. Shakespeare is especially qualified for this work by his bacteriological studies in Koch's laboratory and in his own department at the University of Pennsylvania. The increasing appreciation of the value of state medicine by our government is gratifying and significant. We hope it may lead eventually to erecting a distinct department of public health in our national government, by the presiding officer of which a cabinet portfolio shall be held.

LEADING ARTICLE.

TETANY.

IT is strange that a disease of such frequent occurrence in France and Germany as tetany, and one possessing such marked traits, should be so rarely reported by English and American observers. Possibly some explanation for this may be found in the neglect of many of our systematic writers to mention the disease, while others seem to regard it as simply *tetanus mitis*. Although the pathology of tetany has not yet been definitely established, the morbid anatomy of tetanus has been at least sufficiently investigated to show that they are not identical, and that the difference between the two forms of muscular spasm is one of kind, and not merely of degree. The differential diagnosis of tetanus and tetany was the basis of a paper, illustrated by cases, published by Schuppert some months ago.* In the former he declares the prognosis to be as gloomy as in the latter it is favorable. He says, "Tetanus I am now forced to consider as almost exclusively a complicated wound-disease, with hardly any hope of recovery. *No wound, no tetanus;* though not every case of spasmodic convulsions associated with or following a wound can be called tetanus. The so-called 'idiopathic tetanus' is not a true tetanus, but almost always a *tetany*, a denomination first proposed by Corvisart, and since generally adopted in France and Germany." Local muscular spasms, however, must be excluded from the consideration of tetany, as suggested by the classical description of the disease by Kussmaul, and the strict application of this would reject the first case of Schuppert, in which painful paroxysmal muscular contractions occurred in a stump after a thigh-amputation, owing to the presence of an imprisoned ligature, which afterwards escaped by ulceration, with immediate and lasting relief to the patient. His second case is one of tetany owing to constipation.

A case of intermittent tetany of five years' duration in a patient suffering with chronic diarrhœa has been recently reported by Dr. James Stewart to the Medico-Chirurgical Society of Montreal,† the paper concluding with a few remarks upon the clinical history, pathology, and treatment of tetany, which admirably summarize the present state of our knowledge upon this subject. Three apparently distinct forms of tetany exist, forms which differ much in the causes which give them origin and in their prognosis, though but little in the clinical pictures which they present. The most common is the "rheumatic," or epidemic, variety; the second is more chronic, and is due to either chronic diarrhœa, prolonged lactation, or other debilitating influences. The third form follows operations for removal of enlarged thyroid glands. In the first two recovery is the rule; in the last-named, or surgical variety, early and complete recovery is stated to be very exceptional.

As regards its frequency, Dr. Stewart states that on the continent of Europe it is quite common, and this is true of all forms of the disease. In Vienna not a winter passes without an epidemic of it, while cases of the chronic and surgical varieties are not at all rare. Up to May, 1883, Billroth had performed seventy-eight operations for removal of goitre,—twelve of which proved fatal, six of these being directly due to tetany. In all, there were thirteen cases of tetany following the seventy-eight operations, six of which ended fatally. Two of the fatal cases ran a course of upwards of one year, while the remaining four terminated within two weeks. Clinically, tetany may be distinguished from tetanus chiefly by the fact that the

* Tetanus and Tetany. New Orleans Medical and Surgical Journal, vol. xii. pp. 434, 507.

† Canada Medical and Surgical Journal, August, 1885.

spasms exist primarily in the hands and feet, although in more severe cases the muscles of the trunk and jaws may be affected; but rigidity does not begin in them, as in tetanus. The contractions are not very painful, and usually vary in intensity from time to time, even when a degree of spasm is persistent for days. Tetany shows a special tendency to recurrence, after periods of entire immunity. It is most common in children, and in adults it appears occasionally; but especially is it apt to attack women during lactation.

Should tetanus be proved to be a bacterial disorder, or due to a specific poisonous element present in the blood, it will only furnish additional reason for requiring cases of tetany to be separated clinically from others which they more or less resemble. F. W.

NOTES FROM SPECIAL CORRESPONDENTS.

PARIS.

THE "French Association for the Advancement of Science" continues its sittings at Grenoble. M. Boucheron, of Paris, presented an interesting article in regard to the régime to adopt in cases of arthritism, particularly when seated in one of the organs of sense. The fact that in all these affections there is an overabundance of the nitrogenous elements (shown by uric acid in the urine, etc.) had led the lecturer to think that an alimentation containing very little nitrogenized matter would be advisable. He cited the case of the celebrated monks at the convent of the "Chartreuse," who live as follows: in summer they have two meals, composed of fish and eggs, vegetables, milk, and a little wine; in winter they take but one meal and a lunch, about the same, but no meat; and, notwithstanding the winter is very long and cold up there, they keep in excellent health. Gout or rheumatism is unknown among them. Even those who are so afflicted when they enter the order get cured by the régime. They have no articular diseases, and skin-disease or asthma has no hold on them. They all live to quite an old age. So that an alimentation containing but little nitrogen is not hurtful to health, but may be given with great benefit, and in arthritic cases may be conjoined with mineral waters and other appropriate treatment. M. Arduin had something to say on the therapeutic action of antipyrine. It seems to have a very special action in diseases of the lungs, principally in tuberculous fever. With small doses of 25 centigrammes to 50 centigrammes, the temperature will fall from one and a half to two degrees. Its action in nervous maladies, in articular rheumatism, and in albuminuria was spoken of, but it was admitted to be much more inconstant here. From some experiments, he had concluded that its action was on the medulla oblongata and the brain; it slows the pulse and causes death by arrest of the heart. Its hæmostatic effects are much more rapid than the perchloride of iron and ergotine, but they are entirely local,—quite different from ergotine. It is also an antiferment, like salicylic acid. The latest use of it is as a suppository for hemorrhoids.

M. Delthil again called attention to his treatment of diphtheria by inhalations of a mixture of coal-gas tar and turpentine. He still thinks that diphtheria is secondary to a primitive inflammation of the tracheo-pharyngeal mucous membrane. The inhalations he regards as the best method of preventing the secondary affection. M. Delthil also spoke of the use of large doses of sulphate of magnesia in cancer of the stomach. He could raise the dose to forty grammes without causing more than one stool a day, as the patient's system got used to it. There is perhaps no cure, but all the morbid symptoms disappear, and there is an arrest of the disease.

In the Anthropological Section, a disciple of Darwin, M. de Mortillet, read a paper on tertiary man. The question, he said, was not to know whether man really existed in the tertiary epoch as he exists to-day. Animals vary from one geological stratum to another, and the higher the animals the greater the variation. It was to be inferred, then, that man would vary more than the other mammals. The problem was to discover in the tertiary period an ancestral form of man, a predecessor of the man of historical times. M. de Mortillet affirmed that there are unquestionably in the tertiary strata objects which imply the existence of an intelligent being. These objects have been found at two different stages of the tertiary period: one in the lower epoch at Otta, in Portugal, and at Puy-Courney, in Cantal. These objects proved that at these distant epochs there existed animals acquainted with the use of fire and able more or less to cut stone. During the tertiary period, then, there lived animals less intelligent than existing man, but more intelligent than existing apes. M. de Mortillet gives the name of *ape-man* to the species, which he maintains was a historical or ancestral form of man, whose skeleton has not yet been discovered, but who has made himself known to us in the clearest manner by his works. A number of flints were exhibited from the strata in question, which had apparently been intentionally chipped and exposed to fire. The general opinion of the savants assembled at Grenoble was that there can no longer be any doubt of

the existence in the tertiary period of an ancestral form of man.

Our neighbors at Antwerp opened an International Congress of physicians engaged in the cure of mental diseases, under the presidency of M. Victor Desguin, who is the president of the Belgian society for mental diseases. Among the members of the Congress are Messrs. Pritchard, Davies, and Eaves, of London, and Peacocke and Curtis from Ireland, with Dr. James Rutherford, of Scotland. In his reply to the burgomaster's speech of welcome, Dr. Desguin explained that the scope of the Congress comprised especially these two subjects: (1) the basis of a good international statistic concerning the mentally diseased; (2) the relations between criminality and mental disease. The Congress charged an international committee with the duty of determining the headings for the bases of statistics regarding mental disease. Prof. Lefebvre, of the University at Louvain, speaking on the first subject, said, after having stated that there were any number of classifications used by great men, that he was forced to admit that none of them fulfilled the duty needed. He proposed to base all future statistics on the *number* of patients in any place; the *cause* of their alienation, if it could be found out; the *kind;* next the *duration;* and, finally, the *termination*. M. Oudart read an interesting paper on "Colonization." It seems that in Belgium, as well as in other countries, the number of the mentally diseased is fast increasing. The well-known colonies of Gheel and Berghe were spoken of, and M. Oudart thought it was greatly preferable to develop the idea of colonization than to shut up the mentally afflicted. The advantage as regards economy was great, and the influence for cure was immense. M. Benedikt, of Vienna, made quite a remarkable communication on the therapeutic effects of static electricity. He believes that, administered in the form of a douche, static electricity is a powerful modificator of the intracranial circulation. It is in this way that he can explain the good results he has obtained in auricular disorders which accompany nervous affections. He reported several cases, even of mania, that were relieved in this way. He did not, however, claim as yet to cure his patients definitely, but certainly he obtained a most marked sedative effect. M. Verriest presented a hypnotic patient who offered a most curious example of *double existence*. About the age of fifteen, the girl, who had been a most quiet, reserved person, had an attack of convulsions, after which she became quite changed in character, but in this condition *she could not drink*. A second attack brought her back to her first mood; a third then returned her to the second state, and so on. Dr. Verriest could provoke either side of her character with a few passes over her eyes and a sudden shout. When in her first phase she cannot speak and does not know where she is, while she remains quiet and silent when spoken to; when water is offered she drinks several glasses, because when she goes into her second mood she cannot drink, but she becomes very gay and lively, smiling and talking. The latter part of the Congress was taken up with the discussion of the relations between criminality and insanity.

The Italian Medical Association held its eleventh General Congress at Perugia, Italy, during the early part of September. Prof. Madruzza was the President. Dr. Bianchi, of Florence, spoke of his way of obtaining the contour of an organ by having the patient or an assistant fix a Camman's stethoscope about the centre of it, while the physician puts the two tubes in his ears and proceeds by percussion, marking the points where the dull vibrations give place to strong ones. The same gentleman spoke of the therapeutics of the sap of the fig-tree. Pliny and others, writing in the Middle Ages, used it. A few drops extracted from the leaves and fruit, placed on a piece of wet fibrin, rapidly reduce it to a substance soluble in water, which gives the reaction of peptone. Signor Bianchi has found this substance very useful in dyspepsias where there was a deficiency of the gastric juice. It could also replace papaine in application to the diphtheritic membrane and to old ulcers. Dr. Pagliani reported a large number of cases of sciatica which he cured by the application of a revulsive in the shape of a cerate made with senna. This plaster was kept on the part for seven hours, and followed by baths of hot, dry air. Some twenty-one cases of cure were attested. Dr. Giacomini, of Turin, presented a large number of microscopical preparations kept by a new process which does away with glass slides and covers altogether. By this method a great economy is realized, and the preparations are easy to make and can be handled much better than glass slides. The microscopical section is placed in a stratum of gelatin and covered back and front with a layer of collodion, very thin, to protect and render unalterable the gelatin. They are prepared as follows: Commence by cleaning a glass slide of the size wanted; this is the capital point,—all impurities must disappear. This done, then pass over the glass slide a very thin coating of collodion and allow the ether to evaporate. Then plunge it into a solution of gelatin at ten per cent., at the temperature of 50° C. The section is applied to the collodioned glass, and afterwards it is taken out of the bath of gelatin. The whole is now allowed to dry, and it is then slipped off the slide, when a clear preparation is obtained that is as light as paper. Prof. Giacomini passed around a number of these preparations which were as large as an octavo sheet of paper, and which took in complete brain-sections that would

certainly be of great use in macroscopic as well as microscopic study. Dr. Manassei, of Rome, had a good deal to say regarding the employment of medicinal substances incorporated in soap, such as camphor, naphthol, carbonate of lime, sulphur, boric and salicylic acids, arsenic, and corrosive sublimate, which are all used now as medicinal soaps and are highly advantageous, as they do not soil linen so much and allow of more ready cleansing of parts to which they are applied. Friction with these soaps softens the skin and impregnates the epidermis with the virtues of the medicine employed. We have already spoken of making mercurial ointment with soap. The only question to solve is, What relation have the salts of soda and potash in the soaps to the medicinal substances employed?

Naturally enough, cholera is still on the *tapis* here, although the daily papers do not mention it at all. While there has been considerable amelioration, yet it must be confessed that the whole of the south of France, Italy, and most of Spain is still infected with the fearful disease. The total of last week at Marseilles was forty deaths; a few weeks ago it was more than that number per day. At Toulon the rate is about ten per day now. A large number of the towns along the south coast (even Nice) have several cases. In Spain it seems at last to take a favorable turn, and only several hundred cases are reported daily (deaths). In Italy, most of the places along the Mediterranean are infected more or less. About Naples and in that city itself it rages with considerable intensity. Palermo, in Sicily, has the epidemic in its worst form: more than a hundred cases a day in the city itself. This has caused the ignorant people of Naples and other ports to insist on all persons coming from Sicily being forced to return. Here in Paris, so far, there has been no cholera. A fright was caused by an outbreak of dysentery at one of the large barracks; but, on boiling all the water used, the epidemic passed away. Prof. Peter held the Académie de Médecine during three sessions while he exposed his theories and treatment of cholera. Last year he had some fifty cases to treat, and he gave the substance of his treatment in his lectures at the Medical School. He believes that cholera is the top, as it were, of a morbid series which may stop anywhere from a simple diarrhœa up to real cholera. *Cholera nostras* is only a form of Indian cholera, from which it differs in intensity: either of them may become epidemic. As to real cholera being contagious, the professor thinks that it is limited to persons who are weakened by disease or to some individual predisposition. Thinking that the disease is an irritation of the solar plexus, with a hyperæmia of the digestive tract, Dr. Peter recommends every possible means to combat this irritation: vesication of the epigastrium, continuous current,—one electrode on the stomach and the other in the rectum (a current of twenty-five milliampères was used),—dry frictions, alcohol; for pain, hypodermics of hydrochlorate of morphia; in plethoric persons, leeches; and, finally, Prof. Peter spoke at length of the use of Dr. Chapman's ice-bag. He had used it in ten cases, with a result of ten cures. The ice-bag is a triple rubber bag, about twenty to twenty-four inches in length and about four inches wide. Each part is filled with fine pieces of ice, and it is applied to the back along the spinal column. Its application should be constant, so the ice must be changed from time to time. The vomiting was stopped by its use almost at once, while there was a great diminution in the cramp. The patients warmed up, the pulse came back, and all the symptoms gradually went away. Dr. Chapman is an English physician who has practised now for a number of years in Paris, but was formerly in India, where he had cholera to treat. He has just published a book entitled "Cholera Curable." * Some of your readers may remember his former recommendations of the ice-bag for sea-sickness. Dr. Miquel, whose interesting work here in regard to atmospheric germs is so well known, has a late article on the subject of "Cholera and Atmospheric Bacteria," comparing the number of bacteria found in the air during the last epidemic and those before and after. It was seen that the number was greatly increased during the epidemic, and grew with it, falling afterwards. A series of tables are given to prove this fact. The more the air was charged with bacteria, the worse the cholera was; so that a microscopic analysis of the air leads to this hypothesis,—that Indian cholera has for its morbid agent a bacteria; that this bacteria can take as a vehicle the air, and so infect human organisms directly or by means of entering the water or food we use. Temperature does not seem to affect the air-bacteria. The conditions that preside over their generation are *heat* and *humidity;* those that favor their dissemination are *dryness* and *wind.*

A treatment of enteritis in children which was very successful last summer in France it may be well to give you in full, as the mortality to infants in America is even more than it is here. Some two hundred and fifty cases were treated in all, with a result of only two deaths, under the direction of Dr. Cayla. With an absolute milk-diet (with lime-water), starch-water rectal injections were given, and the two following prescriptions:

℞ Tinct. nucis vomicæ, gtt. iii;
Syrup. krameriæ, 15 grammes;
Syrup. cydonii, 15 grammes;
Aquæ destillatæ, 40 grammes. M.

* Cholera Curable. A Demonstration of the Causes, Non-Contagiousness, and Successful Treatment of the Disease. By John Chapman. 8vo. Pp. 144. London, J. & A. Churchill.

℞ Potassii bromidi, 50 centigrammes;
Syrup. belladonnæ, 15 grammes;
Syrup. menthæ pip., 15 grammes;
Aquæ destillatæ, 40 grammes. M.
Sig.—Teaspoonful hourly of each alternately.

The nux vomica increases the contractility of the muscular fibres, the rhatany and quince act as astringents, while the bromide and belladonna stop the exaggerated secretion of the glands.

While on formulas, it may be useful to give the injection used here in rectal alimentation in cases of cancer of the stomach:

Beef-soup (concentrated and all the fat removed), 200 grammes;
Extract of cinchona (aqueous), 1 grm;
Port wine, 20 grammes.
To be administered five times a day, per enema.

We close our letter with a favorite formula of Dr. Juliens for pruritus:

Pomade for Pruritus Vulvæ.

℞ Zinci oxidi, 25 grammes;
Acidi salicylici, 1 gramme;
Glycerini amyli, 25 grammes. M.
Sig.—Apply as needed.

THOMAS LINN, M.D.

PARIS, September 23, 1885.

BOSTON.

AN UNSATISFACTORY WATER-SUPPLY.

THE water-supply of Boston has engaged a large share of the attention of her citizens during the last few years, and more especially perhaps during the last months. Owing to methods of administration which seemed questionable to the public, the former Board of Water Commissioners has been retired and new men appointed, who have taken hold of the problems which confront them with a manifest desire to do their best towards their solution. As in most of the older cities, our water-supply has grown not from one comprehensive original plan, but by such additions as were rendered necessary and available by the circumstances of the hour. These additions, however, have reduced the quality of the water from one of the best to one of the poorest. The original supply was taken from Lake Cochituate, some twenty miles west of the city. This has been supplemented by other neighboring bodies of water. One of these is Farm Pond, some two or three miles west of Cochituate. The water from Sudbury River also, still farther to the north and west, is collected in basins, and carried into and through Farm Pond, to be added to our supply.

About two years ago a very offensive taste was perceptible in this water. Prof. Remsen, who was called in as an expert, declared it to be due to algæ decomposing in Farm Pond. A conduit was therefore begun to carry the water from the river through the basin of Farm Pond, without intermixture with the waters of the latter, should these remain unhealthy. The so-called "cucumber taste" is now not present to any degree in this water.

A second and quite independent source of supply is from the Mystic River, north of Boston. This was brought in as the dower of Charlestown when that municipality was annexed to Boston. It also supplies one or two other cities and towns contiguous to Charlestown, but not within the limits of Boston.

The great difficulty with our present supply is this, that it is obtained from sources which form the natural means of drainage of other communities, and have been so used for years. These communities naturally consider it a grievance that they should be obliged at their own expense to provide new means of drainage simply to secure the purity of water that other persons choose to drink. Many of the people of Natick are emptying their drains into Pegan Brook, a tributary of Lake Cochituate. Manufacturing establishments and private houses in Framingham drain into Beaver Dam Brook, another tributary. A junction railway station at the latter place, well supplied with water-closets for the large number of travellers who use the station, drains into a cesspool which overflows into Farm Pond. The State Woman's Prison at Sherburne has an expensive but not particularly successful system of irrigation by which the filtered sewage, retaining, however, a large amount of organic matter in suspension and solution, finds its way into the lake. It is obvious that a considerable portion of human excreta must get into the Cochituate system, and that if any cases of typhoid fever or cholera were to occur in the houses contiguous to these streams the most disastrous results might be expected among the citizens of Boston.

The Mystic system is contaminated by refuse more obnoxious to the visual, olfactory, and gustatory senses, but perhaps no more dangerous than the Cochituate supply. A large number of tanneries in the towns of Winchester and Woburn are situated in the Mystic basin. A sewer was built by the city of Boston a few years since for the protection of this water, but without the co-operation of these other towns, so that the sewer was made only large enough to receive the tannery waste. Now a number of these manufactories do not make use of the sewer at all. At some points on this source of supply one may, as the writer has done, scoop up handfuls of hair and decaying animal matter. It is now under contemplation to abandon the whole Mystic system, and this will have to be done, or else much more active steps must be taken to shut off these nauseous impurities. A decision in a test-case brought against a person for contaminating the supply has been favorable to

the complainants, and such cases in future may be referred directly to a judge without going before a jury, the latter being usually prejudiced in favor of the defendants. Still, legal steps have to be taken separately against each person guilty of contaminating the supply, and this of course takes time.

A committee appointed jointly from the two district societies (Suffolk and Norfolk), which comprise most of the physicians of the city, has during the past summer investigated the matter of the purity of the water-supply. They discovered nothing that was unknown before, but have done something in the way of calling public attention to these abuses. At the request of the mayor they made a report to him of their findings, which was by him transmitted to the Water Board. The latter body have since issued a full report, covering the whole matter of the water-supply, and detailing clearly its sources of contamination. It is expected that the legal department of the city will be invited to take energetic action in the early future.

Some two years ago a State Commission was appointed to investigate the disposal of sewage, with a view to relieving the river-basins and protecting the water-supply of the various portions of the State, so that no one community should imperil the health of any other. A report from this Commission to the Legislature is hoped for this winter or next, and some suggestions of practical value are looked for.

THE MONTREAL EPIDEMIC

of smallpox has caused some anxiety not only in the border States, but also in Massachusetts, on account of the large travel between Canada and Massachusetts, and because many French-Canadians, who by reason of their bigoted opposition to vaccination and to isolation are especial sufferers from the disease, are in the habit of coming into our manufacturing towns for work during the winter months. Realizing the inadequacy of any individual State Board of Health to prevent the importation of the disease, the Governors of several States joined in a request for aid from the medical officers of the Treasury Department. Accordingly, Surgeon Austin, of the Marine Hospital Service, has gone to Burlington, Vermont, where he receives reports from a corps of inspectors who watch all trains crossing the line, vaccinate all unprotected persons, and detain such individuals and luggage as have been exposed to the disease. The employés of the Boston and Lowell and other roads communicating with Canada have been vaccinated, and no through-cars are now run to Montreal, the passengers changing cars at or near the line. Suspected baggage is fumigated at Rouse's Point, St. Albans, Richford, Newport, and Island Pond.

A NEW NURSES' HOME.

At the City Hospital, where for several years a successful training-school for nurses has been in operation, the nurses have had quarters in the hospital buildings, in many cases not out of earshot of the patients, and in others in rooms which were originally intended for patients. Last year an appropriation of forty thousand dollars was made by the city government for a building to be used as dormitory and refectory for the nurses. This building has been completed, and is just occupied by the nurses, who a few nights ago received their friends in it. It is one hundred by thirty-eight feet, four stories high, and is a tasteful structure of brick, accommodating sixty-eight nurses. The three upper floors are taken up wholly by sleeping-rooms, most of them designed for single occupants. On the lower floor, beside a few sleeping-rooms are reception-rooms and parlors, some of which at certain times are used for lecture-rooms in connection with the work of the school. The floors throughout are finished in hard wood with plain mats. In the basement is the kitchen with its adjuncts. The building lies just across the street from the hospital, and takes the nurses out of doors in passing to and from their work. An enclosed yard will, it is hoped, prove capacious enough for one or more tennis-courts, wherein the nurses when off duty can throw off the depressing influences of the wards.

A NEW HOSPITAL

has just been completed under the plans of the Board of Directors for Public Institutions, on Deer Island in the harbor, where are some of our reformatory institutions. It is on the pavilion plan, is of wood, and contains three wards. It was inaugurated September 30 by the usual ceremonies in favor with junketing councilmen on such occasions, and was opened for patients October 1. C. F. W.

CHICAGO.

PROFESSORS and pupils are returning to their posts, the medical schools are again showing signs of activity, and the janitors and porters have assumed that air of importance and responsibility so well calculated to impress all first-course men. The classes promise to be quite as large as those of preceding years.

As it is becoming fashionable to have a hospital of some kind or other as an annex to the medical school, one of our institutions, not to be outdone, has devoted a part of the college-building to hospital purposes, beds having been put in, and one or two wards opened for the reception of patients. This is of course very handy, but it is a question (for obvious reasons) if it be wise. This may be entertaining to the students, but its effect on patients remains to be seen.

The committee of the City Council is having its periodical struggle with the sewage question. Meantime, the filth for the mos

part goes to the lake, and though it may not yet have contaminated our drinking-water, such a condition can be postponed for a few months at most, and it is altogether likely that the city authorities (who, by the way, are totally incompetent) will wrangle and argue valuable time away to no better purpose than the expression of Common Council sense and wit.

There has been another revolution in our county insane asylum. Dr. Kiernan, after a long struggle with the rough element constituting the employés, and after enduring repeated personal assaults, had to succumb, and his resignation was eagerly accepted. The old order of things is again operative, and the "gang" is in full possession.

The only hope for all State and county institutions for the insane is to take them out of politics. As it is now, they serve but one purpose, that of providing places for men who could not outside the institution earn half the compensation.

The question of the intestine differences regarding the meeting of the International Congress hardly disturbs professional equanimity, the balance being rather favorable to the action of the American Association. The homœopaths of this city have raised a feeble cry for some representation, arguing that if leading regulars of this city can consult with them, the said regulars must in so doing recognize their methods, and therefore they stand upon a common basis.

A prominent homœopath remarked, "Do you think that when I meet an 'allopath' I am going to remain a passive witness and obedient tool to the dictates of one who I know takes no stock in my methods? No, sir; I invariably see to it that he meets me at least half-way; and I could name more than one prominent man who has given as substantial support to the theories of Hahnemann as I could wish. If representative men of your school can meet us and recognize and approve our methods, why can they not accord us recognition in their councils?"

Is it different that two should meet in council, or that twenty should?

Typhoid fever has been prevailing to some considerable extent, but is in most cases of a mild type. The past summer has been unusually cool, diminishing our mortality in certain directions.

CHICAGO, September 29, 1885.

HEMORRHAGE FROM A TOOTH-SOCKET.—Dr. Blackville reports a case of hæmophilia in which obstinate bleeding followed the extraction of a tooth. Ergot and witchhazel were given internally, and Monsel's solution applied locally, without checking the hemorrhage, when it occurred to him to fill the alveolar cavity with dry plaster of Paris, a few repetitions of which completely controlled the flow.—*Med. and Surg. Reporter.*

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, SEPTEMBER 10, 1885.

DR. J. HENRY C. SIMES, Vice-President, in the chair.

DR. GEORGE DOCK exhibited to the Society a patient suffering with

SECONDARY EPITHELIOMA,

and related the following history:

The case occurred in the practice of Dr. W. W. Keen at St. Mary's Hospital, to whom Dr. Dock acknowledges his indebtedness for the opportunity of recording it.

Mary C., æt. 70 years, married, born in Ireland, applied for treatment November 29, 1884. Her personal and family histories seemed to be unusually good. No traces of constitutional disease can be found. She uses alcoholic liquors in moderation, and has smoked a clay pipe for the greater part of her life. Filling the right submaxillary region and extending up over the inferior maxilla was a tumor, the distinct outlines of which included a space about three inches in diameter. The lower part was very prominent, standing out as a flattened node one and a half inches in diameter and about three-fourths of an inch high, the whole height of the tumor being one and a half inches. The growth was hard, immovable on the lower jaw; the surface was smooth and red, changing to a dull purple on the nodular elevation. On the summit of this growth was an opening leading upward and inward three-quarters of an inch. The skin around the opening was everted, and the surface of the crater-like cavity covered with large and small granulations, which exuded a thin, gray, offensive pus. The neighboring lymph-glands were not enlarged. The general condition was good.

The patient stated that the growth first appeared six months before admission to the hospital as a "kernel" below the jaw. She applied various poultices and salves to it. The tumor grew rapidly for the following four months, when it opened, discharging a large amount of pus; after that there was no apparent increase in size. The patient could assign no cause for the tumor except a scald received about one year before on the lower lip, near the angle of the mouth on the right side. This was followed by an ulcer, which was removed at the Episcopal Hospital in February, 1884, about two months before the appearance of the enlarged gland. Dr. J. M. Bradford, late resident-physician at the Episcopal Hospital, states that the ulcer was noted as epithelioma.

On December 3, 1884, Dr. Keen removed the tumor, together with a margin of healthy

skin and the submaxillary salivary gland. The external plate of the inferior maxillary appeared roughened, and was cut away. The cavity of the mouth was not opened. By the use of hare-lip pins and sutures the edges of the large wound, four and a half inches in diameter, were approximated almost perfectly. The dressings at first were carbolized; afterwards iodoform was used. In the fourth week after the operation a small, red, indurated, sometimes painful, spot appeared in the skin just posterior to the wound; a few days later the patient was discharged.

Microscopic sections made through various parts of the growth showed the structure of squamous epithelioma everywhere. The salivary gland was invaded. No trace of the lymph-gland could be found, and the supposition was that it had ulcerated away completely.

The patient was lost sight of until the beginning of May, 1885. She stated that, after leaving the hospital, the small swelling alluded to increased rapidly in size, and in a few weeks was larger than the one removed. She used no irritating measures, but the tumor broke down and ulcerated away, leaving a large granulating surface.

On examination, I found an ulcer on the side of the neck, extending from one inch to the right of the median line to beyond the angle of the jaw, irregularly circular in outline and containing islands of epithelioma. There was a small opening into the cavity of the mouth midway between the angle and the symphysis of the jaw, and just inside of the inferior border of that bone. The symphysis was drawn to the right about half an inch. There was a hard, tender swelling on the gum, above the inner edge of the opening, covered with small, dark-red nodules. In June the inferior maxilla was still more atrophied, and had separated at the point of swelling and opening before mentioned. The adjacent ends of bone and gum were covered with a small fungous growth.

The process of atrophy and new growth is still continuing. The left alveolar process approaches the median line of the oral cavity, and the point of the chin is on a line dropped from the outer angle of the right eye. The ulcer on the neck is healing, but the new growth in the mouth is rapidly enlarging, so that the tongue cannot be extruded. There are no enlarged lymph-glands, but within a few days the patient has complained of pain in a gland in the subclavian region. The general condition is very poor; the patient lives on liquid food, and takes morphia to induce sleep.

[The patient and the microscopic sections were then examined by the members of the Society.]

Dr. T. D. DUNN exhibited the contents of a cyst recently removed from the back of a cow.

Dr. GUY HINSDALE exhibited a specimen of

ENLARGED PROSTATE.

The specimen had recently been presented to the Mütter Museum of the College of Physicians by Dr. J. L. Stewart, of Erie, Pennsylvania, and was removed from a man, æt. 75 years, who, sixteen years previously, had first come under Dr. Stewart's observation. At that time he was a strong, well-developed man, who had never been sick before in his life, but was then suffering from retention of urine, which had existed for seventy-two hours. It was found to be impossible to introduce a catheter, owing to an enlarged prostate, estimated to be larger than a hen's egg. Circumstances rendered it necessary to force an instrument through the gland, and five and a half pounds of urine were drawn off. A train of most unpleasant symptoms followed, and for weeks there was profuse suppuration, with complete incontinence and great prostration. After about thirty days, improvement began, and continued to complete recovery. Three months afterwards the patient seemed perfectly well.

Attacks of cystitis and retention became frequent, and for sixteen years only once did an interval of over three months pass without an attack, the usual time being about twenty days. During this time Dr. Stewart introduced the catheter eleven hundred and ninety-four times. Pain was intense during the later years, when four or five ounces of urine had collected in the bladder. Meantime, the prostate continued to increase in size, and in November, 1884, was believed to be of the size of a large orange. On the night of the 27th of May, 1885, the patient had his last attack. Dr. Stewart not being at hand, two other physicians did not succeed in introducing an instrument. Just before 9 A.M. of the following day the man was attacked with the most excruciating pain, followed by a severe chill. At this time it is believed by his medical attendants that rupture of the bladder occurred, and the early date of this accident is accounted for as being the result of the contracted condition of the bladder. From this time there was no acute pain, but a severe aching followed by prostration. At 9.30 A.M. the bladder was aspirated, one ounce of urine coming away. Dr. Stewart catheterized him on the third day, drawing about a tablespoonful of urine. The patient died on the morning of the fourth day. His mind was clear and his voice strong to the last.

The post-mortem examination was not made by Dr. Stewart personally. It is stated that there was a rupture of the anterior part of the bladder, near the fundus, and that the cavity of the abdomen was filled with urine.

The specimens were not removed in such a way as to make this evident.

The specimen, as presented, consists of the prostate gland laid open by a cut in the ver-

tical line, and having attached to it the bladder, the walls of which have been cut in several directions. These walls are thick, and have apparently undergone fatty degeneration, as had also the kidneys, which accompanied the specimen, the pelves of which were thickly overlaid with fat. The long diameter of the prostate, after being in alcohol for three months, is three inches; the shorter diameter, two and three-quarter inches; the third lobe is one inch long, and through it the catheter passed and still remains in position. The bladder-walls, when replaced, indicate a very small internal capacity.

Dr. J. M. BARTON stated that but one case of rupture of the bladder from over-distention had come under his observation. It occurred in a German, who had an impermeable stricture of eight years' duration. No urine whatever passed. The contents of the bladder were removed several times by aspiration, while attempts were being made by filiform and other bougies to pass the stricture. As these failed, perineal section was suggested to the patient and his friends, but refused, and the doctor was told that they would send for him when they needed him. Three days later Dr. Barton was sent for. He proceeded to the house, accompanied by Dr. S. W. Gross. The man was in a dying condition: the bladder-tumor, which before was very prominent, had disappeared. Aspiration over the pubes and a trocar inserted by way of the rectum both failed to reach any urine.

On post-mortem examination, a small rent was found in the upper part of the bladder, but the specimen could not be secured.

In old cases of prostatic obstruction Dr. Barton had several times found, on post-mortem examination, that the patient had thrust the instrument through the "third" lobe. In one case several such openings had been made and had healed kindly.

The Committee on Morbid Growths reported regarding Dr. Mitchell's specimen of

CANCER OF THE STOMACH,

exhibited at the last meeting in June, as follows:

(*a*) *Stomach.*—Microscopic sections across the wall of the stomach show an active proliferation of the epithelium of the mucous membrane pushing its way into the wall, infiltrating it and forming alveolar spaces. The wall is further infiltrated with young cells, which for the most part replace the normal structure of the part. The process has probably been a chronic catarrh, with great hypertrophy, passing gradually into a carcinomatous type.

(*b*) *Omental Nodules.*—Sections of these show an indistinct alveolar structure filled with epithelial cells, and a small-celled infiltration of the adipose tissue. The appearances are those of a carcinoma, secondary probably to the growth in the stomach.

The committee reported regarding Dr. Nancrede's specimen of

HÆMATOCELE OF THE TESTICLE

as follows:

Sections exhibit layers of more or less well developed connective tissue, through which are scattered numerous young connective-tissue cells. No evidence of sarcoma-tissue is present. The growth should be classed as a chronic connective-tissue hypertrophy, and, as the sac contained hæmatin, the specimen is of chronic hæmatocele.

NEW YORK ACADEMY OF MEDICINE.

A STATED meeting was held October 1, 1885, the President, A. JACOBI, M.D., in the chair.

ADDRESS BY THE PRESIDENT.

In his address the President called attention to a few facts which were likely to have an important bearing upon medical progress. He first referred to the collective investigation of disease, and the work proposed to be done in this direction by the committee appointed at the International Medical Congress held in Copenhagen. After stating the objects to be accomplished, and refuting objections which had been made to collective investigation of disease, he expressed the hope that the Committee would be sustained in its efforts by the general profession. He then compared the code of ethics of the Medical Society of the State of New York with those of the American Medical Association, as interpreted at the recent meeting in New Orleans, and expressed the opinion that there was but little difference between the two as it concerned consultations. The State Society, therefore, was to be congratulated upon the influence which its action had had in bringing about in so short a time this change of opinion on the part of the profession throughout the country. But as he had replied to a suggestion by one of the members of the Academy, this Society was not the place to introduce the subject of medical politics. He then spoke of amendments to the by-laws, and suggested the importance of widening the duties of the Committee on Ethics, requiring its members to bring charges against those who violated the rules, and not to wait until charges were preferred by another before they took action.

Another warning was given to those who sought advertisement in public prints.

OBSCURE CASES OF WEAK HEART.

Dr. R. VAN SANTVOORD then read a paper on this subject. The histories of four cases were related, which were made the basis of remarks upon special symptoms and upon treatment, particularly by digitalis and caffeine. Weakness of the heart-muscle, independent of valvular lesions, is known to be

an important factor in a large number of morbid conditions; it is the chief source of danger in most acute febrile diseases; it occurs as a result of long-continued anæmia and of various toxic conditions, particularly in alcoholism. Failure of cardiac compensation is frequently the cause of death in chronic renal disease. The right ventricle is frequently affected in obstruction to the lesser circulation. Degeneration of the cardiac muscle might result from inflammation in the course of general diseases, or as a result of lesions of the coronary vessels. The heart might be weakened by repeated strain, and at the autopsy we might find fatty, granular, or waxy degeneration, or the structure of the heart might appear normal, although the history during life pointed to cardiac failure. The diagnosis in many of these conditions could be easily made, but in others the relation of the symptoms to cardiac failure might be overlooked. It was to these obscure cases that the author directed attention.

In the first of the cases which he reported the patient was a man, 42 years of age, with a tendency to corpulency. He had the appearance of being in robust health, but he complained of falling asleep during the day, of headache, and weak memory. He was not addicted to alcohol in excess. There was some indigestion and very slight dyspnœa. The heart-sounds, especially the first, were weak; there was reduplication of the second sound at the base; the pulse 75. Dr. Van Santvoord made the diagnosis of weak heart following pneumonia, a severe attack of which the patient had two years before, at which time his symptoms began. At first the tincture of digitalis and tincture of nux vomica were given, but without improvement, when caffeine and strychnine were substituted, with the result of soon increasing the heart-sounds and causing the disagreeable symptoms to disappear. Twenty-three weeks after the commencement of treatment the patient was in a comfortable condition. There was some shortness of breath, and reduplication of the second sound of the heart could still be heard at the end of inspiration and commencement of expiration.

The second case occurred in a stock-broker, aged 38, who had had business trouble which led him to excessive drink and to take but little nourishment. There was a family history of gout, and one relative had had asthma. Dr. Van Santvoord found slight dyspnœa at the time he was called; the lungs were normal; the first heart-sound was weak, the second hard and metallic and not quite clear. The urine contained a small amount of albumen, with a specific gravity of 1.024. The patient managed to refrain from alcohol, was given good food, and morphine and Hoffman's anodyne at night, and within six days great improvement had taken place. The amount of urine passed during the twenty-four hours was one quart, the specific gravity being 1.014; no albumen. The symptoms, however, returned as soon as the doctor's instructions could not be fully obeyed. The apex-beat was weak, the pulse 102, with occasional shooting pains from the apex to the scapula. Remedies were administered for the correction of the condition of the alimentary tract, and digitalis for the cardiac weakness. Within two days the pulse fell to 84 and increased in tension. After six months' restraint from alcohol, the patient's condition was comfortable and his general health much improved. The first heart-sound was still short and valvular, the second metallic and sharp, the arterial tension low, the pulse 82. The urine contained a small amount of albumen and a considerable number of hyaline casts. Malnutrition had existed in all the organs, resulting from wrong habits, but the rapid and continued improvement after the use of digitalis was proof that the heart was the organ chiefly affected. The exact cardiac lesion was conjectural; there was persistent irritability of the heart, apparently due to mental worry. It was fair to conclude, from the entire history, that the albuminuria was probably unassociated with grave organic changes in the kidneys.

In the third case the patient, aged 54 years, had been accustomed to out-of-door sports, and had probably over-exerted himself; but his health had previously been good, except for constipation. When Dr. Van Santvoord saw him he complained of drowsiness, lassitude, inaptitude for work, and distressing headache, chiefly in the vertex. He had long been in the habit of rising at night to urinate. The apex-beat was found in the line of the nipple, sixth intercostal space, where there was a faint systolic murmur; the cardiac sounds were weak; the lungs were normal. A stomachic failed to correct the symptoms in the head. The tendency to constipation responded only to faradization. After twelve days' administration of ten minims of the tincture of digitalis and twenty minims of the tincture of chloride of iron, the heart-sounds had become louder, the pulse stronger, and the general condition markedly improved. The urine was still passed in large quantity, specific gravity 1.010 to 1.019; no albumen. It was learned that the patient had been treated for stricture, and was suffering from seminal emissions. The enlargement of the heart and the passage of a large quantity of urine led to the suspicion of contracted kidney, with secondary heart-failure, although against this view was the fact that the specific gravity of the urine was normal when the amount passed was considered, and it contained no albumen. The patient went South, and remained in fair health. A year afterwards he visited Dr. Van Santvoord, when he was a little short of breath; had an indefinite disagreeable sensation in the head, and occasional shooting

pains in the arms and legs; the apex of the heart in its former situation; the heart-sounds (especially the second) weak, with a reduplication of the first to the left of the sternum and on a level with the fourth rib. The sphygmographic tracing was of large amplitude, the tidal wave more marked, the aortic notch much higher in the tracing, and the dicrotic wave far less developed, than in the case of the second patient; the pulse 75. Digitalis and fluid extract of ergot caused within ten days diminution in the amplitude of the pulse, lessening of the dicrotic wave, and lowering of the pulse to 64. The sphygmographic tracing now differed from a healthy tracing only in a little lower tension. The urine had a specific gravity of 1.015; no albumen; few pus- and red blood-globules; seventy ounces in the twenty-four hours. The fact that the patient had held his own for a year, the specific gravity of the urine normal for the amount passed, and that the sphygmographic tracing showed low arterial tension, led to the conclusion that the polyuria was due to some other cause than contracted kidney, being possibly a reflex result of the urethral lesion. The cardiac failure, therefore, seemed to be an independent matter. The age of the patient pointed to an early stage of one of the chronic degenerative processes. His addiction to athletic sports suggested the weak, dilated heart, without recognizable histological change, noticed by Münziner.

The fourth case was introduced only on account of certain special features. A boy, aged 14, had a severe attack of measles; previously health had been good. After convalescence he suffered from dyspnœa and lancinating pain in the cardiac region on running. He was thin and pale; cardiac beat was marked over the apex, in the epigastrium, and second left interspace; both ventricular areas enlarged; the heart-sounds loud. There was distinct reduplication of the second sound in the third left interspace, near the sternum. A loud, blowing, systolic murmur was heard over arteries at base of the neck, transmitted into the brachials and femorals. Improvement took place under iron, strychnine, and rest. Dilatation of the heart diminished, the arterial murmur disappeared, the venous hum became lessened, but the reduplication of the second sound persisted. The absence of cardiac murmur and the rapid improvement pointed to cardiac dilatation, with perhaps some fatty degeneration.

It would be seen that reduplication of one or other of the heart-sounds was present in three of these cases. Different explanations of this phenomenon had been offered, but Dr. Van Santvoord thought the most probable one was that reduplication of the first sound was due to asynchronism in the contraction of the ventricles, and that reduplication of the second sound was caused by asynchronism in the closure of the aortic and pulmonary semilunar valves. Such was the explanation accepted by Bramwell for at least the large majority of the cases. The author then considered the theoretical speculations concerning this phenomenon by different writers, and said that persistent reduplication of the first sound had been clinically associated with functional disturbances and grave organic changes of the heart, with or without valvular disease, in a large number of cases; and we could at least say that its presence in any given cases was presumptive evidence of cardiac lesion, the character and gravity of which could only be determined by a study of the other symptoms. Reduplication of the second sound might be due either to derangement of the nerve-supply or lesions of the cardiac muscular fibres, causing contraction of one ventricle to take place a little more quickly than that of the other, or changes in the relative amount of resistance to be overcome by the respective ventricles. Clinical observation showed that reduplication of the second sound was so frequently associated with obstruction to the greater or lesser circulation, or with lesions of the cardiac muscle, or with a combination of both, that its presence should lead us to search for important cardiac disease.

In interpreting the meaning of a strong or a weak heart-sound, we should consider both the degree of arterial tension and the form of the ventricular contraction. The sphygmographic tracings exhibited in these cases showed that in a study of the weak valvular first sound the peripheral resistance to the circulation was as important an element as was the strength of the ventricular contractions.

Dr. Van Santvoord thought it probable that the contrasted effect of caffeine and digitalis in these cases was due to the slighter influence of caffeine upon the vaso-motor apparatus. Caffeine, it would be seen, had proved efficacious in some of the cases where digitalis had failed. The greater safety and more rapid action of caffeine would cause it to be preferred in cases of heart-failure occurring in acute diseases or primary degenerative process of the heart-muscle. He gave it in small but increasing doses, and preferred the combinations with salicylate or benzoate of sodium to the insoluble and unstable citrate.

In concluding his paper the author said that he had probably advanced no new truths, but he hoped it might have the effect of calling more general attention to this rather neglected class of cases of cardiac affections.

DISCUSSION.

Dr. JOHN C. PETERS related the case of a man, 60 years of age, who had always been healthy, of good habits, but who probably had become somewhat reduced in strength by innutrition. He then contracted bronchi-

tis, slight œdema of the lungs occurred, and what astonished Dr. Peters was the fact that there was great weakness of the pulse and cardiac failure. There was a struggle for life during ten or twelve days, after which convalescence slowly set in, and the man was now able to walk a mile. But the dilatation of the right side of the heart would probably not be restored for months. He felt sure that it had not existed before this attack.

Dr. L. WEBER used the hydrobromate of caffeine, and thought that it hastened recovery after weakness of the heart following acute diseases, as typhoid fever, pneumonia, scarlet fever. He would not use tincture of digitalis, but preferred the purer article, consisting of an infusion of the English leaves, or Squibb's fluid extract. In the greatly corpulent person, suffering from dyspnœa and apparently weak heart, he did not give drugs, but regulated the diet, restricted the use of liquids, and directed the patient to walk up-hill.

Dr. E. D. HUDSON said a differential diagnosis in cardiac affections could probably be arrived at if we studied carefully the anatomical structure of the organ, its nerve-supply, and the influence of disturbances of other organs upon the heart's action. First exclude valvular and organic lesions, and then the influence of excitement, depressed vital action of other organs, etc. A patient with a very slow pulse and cardiac symptoms without evidence of organic lesion, and suffering from constipation, would often be relieved of his cardiac symptoms by a cathartic.

The paper was further discussed by Dr. GARRISH and Dr. A. H. SMITH, who thought digitalis might have a twofold action,—viz., in large doses increasing the heart's action, and in small doses improving its nutrition; also by Dr. FRUITNIGHT and the author.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

STATED MEETING, SEPTEMBER 28, 1885.

The President, DANIEL LEWIS, M.D., in the chair.

AMONG those nominated to office for the approaching year were: Daniel Lewis, M.D., for President; Lawrence Johnson, M.D., for Vice-President; Wesley M. Carpenter, M.D., for Secretary; O. B. Douglass, M.D., for Treasurer.

GONORRHŒA IN WOMEN.

Dr. A. F. CURRIER read a paper with this title, and referred for a more complete exposition of his views to an article which he published in the *New York Medical Journal* for January 10 and 24, 1885. The author considered gonorrhœa to be more common among women in this country than was generally supposed even by physicians, and the many evil consequences of the disease made it of the greatest importance that it receive due attention. After quoting the conclusions arrived at in the article referred to, the author said that no important contribution to this subject had been made in American literature since Dr. Noeggerath published his paper in 1876, which had been previously published in Europe in 1872. The views which Noeggerath then advanced were received with incredulity both here and abroad, but they were now beginning to bear fruit, as had been predicted by their author. Dr. Currier then devoted a large portion of his time to a review of the parasitic theory concerning the etiology of the disease. Recent studies going to prove the causative relation of the gonococcus to gonorrhœa, especially those by German bacteriologists, were fully considered. The presence of this germ in any given case brought before the courts of law would offer important evidence. As to the parts liable to be affected by the gonorrhœal poison, Dr. Currier expressed the opinion that the urethra was less likely to be affected than had been stated. Its presence in the periurethral or præurethral glands was liable to be overlooked. Regarding the treatment for gonorrhœal affections of the tubes and ovaries, he thought that all means should be adopted for relief before resorting to abdominal section. The most common form of gonorrhœal disease of the Fallopian tubes is pyosalpinx; but pyosalpinx is not always of gonorrhœal origin. He had never seen gonorrhœa cause miscarriage when it occurred during the pregnant state; nor had he known it to produce any of the ill effects upon the offspring which syphilis is liable to do.

Regarding treatment, Dr. Currier was impressed with the importance of judicious prophylaxis, and thought that institutions which were liable to spread the infection should be under police regulation. Yet he had no elaborate plan to suggest, but simply referred to the government control over prostitutes in France, Alexandria, etc.

With regard to the local treatment, he reviewed the experiments of Oppenheimer and others as to the destructive effect of different agents upon the gonococcus, such as solution of corrosive sublimate, nitrate of silver, iodine, nitric acid, etc.; but for use in the prevention of the development of gonorrhœal inflammation after exposure, these agents were dangerous in the hands of persons ignorant of their proper use. The liability of infection could not be considered as having passed so long as any gonococci existed in the discharges. Experiments showed that cubebs and copaiba were harmless to the gonococci, but that, after having been ingested and eliminated by the kidneys, they were very destructive of these germs. Oppenheimer placed a solution of corrosive sublimate at the head of the list of gonococcides, but Dr. Currier had not found it satisfactory.

He had obtained the best results from subnitrate of bismuth in glycerin. They produced depletion of the congested tissue, and also acted as constringents. It was of the greatest importance that the treatment be carried out systematically, even in detail. The fourchette, glands, and crypts which were difficult to reach should receive particular attention. Dr. Currier thought gonorrhœa was absolutely curable. If the conditions of treatment pointed out were fulfilled, the dead germs would not reproduce themselves. Of course, reinfection was always possible.

Dr. H. T. HANKS said that the question of etiology was still a mooted one, but the pathological results of the disease were only too evident. He believed that a large percentage of all the special female diseases we were called upon to treat were the result of gonorrhœa. This was especially evident in dispensary practice. Dr. Hanks also believed that no doctor could make a positive diagnosis of gonorrhœa or state that it was absent in houses of prostitution unless it were by the aid of the microscope. Women whom the physician would pronounce free from gonorrhœa would be found to spread the disease. Dr. Hanks thought that gonorrhœal urethritis was far more frequent than gonorrhœal endometritis. He had confidence in the successful treatment of the disease, and thought that laparotomy should not be resorted to until every other means had been first tried and failed. He had found various solutions injected into the vagina, the injections made frequently and thoroughly, efficient in the acute stage of the disease.

Dr. H. J. GARRIGUES had made no observations regarding gonococci, but he was in the habit of differentiating between simple vaginitis and gonorrhœal vaginitis by the virulence of the inflammation in the latter affection. The disease was liable to affect the Bartholin glands, and in this case they should be opened and an application made. He had found the bichloride injection the most effectual, but he had formerly made use of other agents and they had proved satisfactory. He agreed with Dr. Currier that the urethra was not often affected. In disease of the uterus he used a strong solution of iodine. As to the efficiency of pads, he thought it was due chiefly to the glycerin itself rather than to the agent it held in suspension.

Dr. H. J. BOLDT found the urethra affected more frequently than the remarks of the other gentlemen would lead us to suppose. He employed chiefly iodine and glycerin, and glycerin and boracic acid. Most cases continued as long as three months.

Dr. LITTLE could not see how the discovery of the gonococcus was going to prove of much value in diagnosis among physicians generally.

Dr. MESSENGER did not think a patient could properly syringe herself; it should always be done by the physician, fully ballooning the vagina. This was easily effected by a syringe which he described. Bichloride of mercury was the best agent.

Dr. CURRIER, in closing the discussion, was not sure but that glycerin played an important part in the cure. He thought we had gained something in the way of diagnosis if it could be made by the microscope in cases of law, although it were not practicable in every-day cases.

THE TREATMENT OF LEPROSY.

Dr. H. G. FOX read the paper, which included an earnest plea for improving the leprosy patient's morale. He thought the medicinal treatment was often rendered ineffectual by excluding the patient from society, perhaps putting him in confinement, and by giving him to understand that his disease was necessarily fatal. He related the case of a missionary to the Sandwich Islands who acquired leprosy, and, notwithstanding the disease was well marked, the symptoms had nearly disappeared under moral influences and the use of chaulmugra oil. Dr. Fox also mentioned the question of contagiousness of leprosy and its hereditability. He did not consider it hereditary, and believed it to be very slightly contagious. He knew of no instance where it had gained a foothold in a civilized or refined community.

Dr. FULLER had seen several hundred persons affected with leprosy in Havana, where the disease was recognized as contagious, but only slightly so. They were considered incurable; their condition was low.

Dr. O. J. MOORE had seen the leprosy patients in the West Indies, and said that, so far as moral influence was concerned in the treatment, the buoyancy of the feelings in these patients was often remarkable. They were allowed many privileges, and could be seen in the streets. He thought the disease might in some cases be hereditary, although it was liable to pass over a generation or more.

Dr. J. C. PETERS had seen the patients with leprosy in Havana, and said they seemed indifferent to their fate.

Dr. DELAVAN spoke of a visit among lepers in Norway, where their number had been reduced from over three thousand to seventeen hundred. They had good surroundings and excellent asylum; were allowed considerable freedom. Their disease, however, was considered incurable, and they received little or no treatment. He was surprised at the author's expressions of hope for these patients. Most of them were of the lowest condition in life.

Dr. H. G. PIFFARD alternated the treatment between nux vomica and chaulmugra oil, according as the patient could bear it. Improvement was common under this treatment.

After some business transactions, the Society adjourned.

NEW YORK PATHOLOGICAL SOCIETY.

STATED MEETING, SEPTEMBER 23, 1885.

The President, JOHN A. WYETH, M.D., in the chair.

RECURRENT EPITHELIOMA OF THE PENIS.

DR. W. P. WATSON presented a portion of the penis of a man 49 years of age, the seat of epithelioma. The man's family history was good; his health had always been good; there was absolutely no specific history. Dr. Watson was called to see him about two years ago, when he was having a profuse hemorrhage from the penis. The hemorrhage had occurred pretty constantly during the past year. In 1865, according to the patient's story, he received a slight wound on the dorsum of the penis, which bled, but did not require the presence of a physician. A short time afterward he entered Bellevue Hospital, where Dr. Hamilton cut away the foreskin for tight phimosis, and, as the patient stated, also removed indurated tissue; but this probably was only blood-clot. None of the head of the penis was removed. About six months afterwards a wart-like growth appeared on the under surface of the organ near the frænum, which caused irritation and was removed. Six months later an ulcerative process began at the base of this growth and spread, and, as said, finally caused almost constant hemorrhage and led to amputation by Dr. Watson two years ago. There had been no enlargement of the inguinal glands; the epitrochlear glands were slightly enlarged. The patient made a rapid recovery from the operation, and was now in good health.

The PRESIDENT said that during the past eighteen months he had seen four cases of epithelioma of the penis, in three of which he performed amputation. In all of the cases there had been phimosis. On inquiry among his friends, he could not learn of a single case of carcinoma of the penis in which phimosis had not existed. This certainly was another indication for circumcision.

VERMIFORM APPENDIX OF GREAT LENGTH.

Dr. LOUIS WALDSTEIN presented a vermiform appendix sixteen centimetres in length, which he had found in a dissection-subject at the German Hospital. Another interesting fact was that the appendix lay with the long axis of the body, and was attached to the hepatic flexure of the colon. There probably had been slight local peritonitis, dislocation of the colon downward, during which the appendix became agglutinated, and was lifted with the subsequent replacement of the colon.

RENAL AND BILIARY CALCULI.

Dr. WALDSTEIN also presented a urinary calculus composed of urates, which was interesting when taken in connection with the history. He was called to see the patient in April last, when he was suffering from an attack of colic, located in and just to the right of the epigastrium, extending over the abdomen. There was slight jaundice. The presence of biliary concretions, afterwards found in the fæces, confirmed the diagnosis of biliary calculus. Improvement took place under the Carlsbad treatment. But in June he was called to another attack: this time the pain commencing in the right lumbar region, extending down the ureter and right leg, and diffused over the abdomen. The subsequent passage of the calculus presented with the urine confirmed the diagnosis of renal calculi. The attacks were accompanied by pain in the glans penis, a dizzy sensation, and, what was peculiar, a tingling in the fingers of both hands. The patient had been a sufferer from digestive derangement for eleven or twelve years, and Dr. Waldstein remarked that such patients were liable sooner or later to suffer from biliary or renal concretions.

The Society adjourned.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

(Continued from page 34.)

The President, B. F. BAER, M.D., in the chair.

DR. E. E. MONTGOMERY read the following supplement to his paper on

BROMIDE OF ETHYL.

I read a paper on bromide of ethyl as an anæsthetic in labor before the April meeting of this Society. Although I did not attempt a history of the early administration of the drug, subsequent investigation has shown me that I did Dr. L. Turnbull injustice in not mentioning that to him we are indebted for the revival of this agent and its first use in this country. In following the German literature by which I was led to use this drug in labor, I ascribed its first obstetrical use to Lebert, of Paris. The first case in which he used it was for the application of forceps, and occurred in March, 1881; but a paper published by Dr. Turnbull (*Med. Bull.*, June, 1880) shows that he had then used it in a second case of labor and spoken in high terms of its peculiar advantages. Dr. H. Augustus Wilson had used it in labor prior to August 7, 1880, when he published an article upon this drug (*Med. and Surg. Rep.*, August 7, 1880). It becomes quite evident that the first obstetrical trial of this agent was made in this city, and the priority lies between the gentlemen named. Various mixtures of the ethyl have been advocated in labor and in minor surgical operations. Booth, of Ohio (*Ther. Gaz.*, 1884–85, p. 159), recommends alcohol, two parts; chloroform and bromide of ethyl, each one part.

W. A. Byrd, Quincy, Illinois (*Ther. Gaz.*,

March, 1884), has used bromide of ethyl, one part, chloroform, three parts, alcohol, four parts, in some ninety-eight cases, without a single unpleasant symptom. It has not everywhere received the same condemnation that is shown by the hesitancy to use it in this city. In spite of the bad name given it by two deaths under its use and the apparently dangerous symptoms induced by experiments upon the lower animals, its use has been revived by Chisolm (*Maryland Med. Journal*, 1882–83, ix. 388) and Prince (*St. Louis Med. and Surg. Journal*, 1883, xiv. 297), who strongly urge its use in minor operations and preliminary to the administration of ether. The last-named has reported five hundred cases in which it was used without a single unpleasant symptom.

A leading article in the *Therapeutic Gazette*, June, 1885, advocates a redistillation of a mixture of bromide of ethyl and olive oil as a valuable and safe antiseptic in labor. These facts are referred to simply to induce the profession to give this anæsthetic a fair trial in ameliorating the terrible suffering of natural labor.

Dr. MONTGOMERY exhibited a

UTERINE FIBROID POLYPUS.

Miss R., æt. 38 years, began to menstruate at seventeen years. The flow was regular, quite free, lasting a week, and was attended with pain the first three days. Ten years ago she had a hemorrhage, and subsequently several such attacks. Two years later she had a severe hemorrhage, followed by a bloody discharge continuing several months, since which time she has never been regular. The flow would occur too frequently, be very profuse, and attended with pain and loss of flesh. The symptoms were more marked during the last year. At one of the hospital clinics some years ago, the difficulty was ascribed to anteversion of the womb. Dr. Bournonville examined her three weeks ago, diagnosticated the condition fibroid polypus, and referred the case to me for treatment.

She was quite pale, lips bloodless; complained of pelvic pain, and of a constant bloody discharge, which amounted to hemorrhage upon the slightest exertion. The vagina was dilated by a tumor the size of an orange, about whose pedicle could be felt the neck of the uterus. The finger passed into the os and about the tumor without difficulty. Every examination was followed by severe hemorrhage. The pedicle was cut through by means of the wire écraseur, and the polypus removed by means of a pair of polypus-forceps. Considerable hemorrhage followed its removal. As this was not controlled by applications of hot water, a tampon saturated with a solution of subsulphate of iron was introduced. This was removed on the second day. On the fourth, her temperature ran up to 103°, she had a chill, and pains in various parts of her body. These symptoms vanished under the use of quinine, digitalis, and opium. Five weeks after the operation she appeared much improved, has had no bleeding since, her appetite and strength are greatly increased, the uterus was normal in size, the cervix still dilatable and will admit the finger with pressure. The cervical membrane was in good condition.

The tumor was the size of an orange. The mucous membrane of the lower surface was ulcerated so that vessels were ruptured, allowing hemorrhage on any exertion.

The case is of interest from the long continuance of the hemorrhage, and illustrates the importance of early and careful examination of the cavity of the uterus in cases of protracted hemorrhage.

Dr. GOODELL now seldom uses the wire for the removal of uterine polypi. He prefers traction with twisting, or enucleation by the finger. There is less bleeding, and he is afraid of "cupping" of the fundus uteri and its injury by being included in the wire loop. He had made traction with the obstetric forceps and enucleated tumors so large as to rupture the perineum, even after lateral incisions had been made in the labia. He has partially inverted the womb, enucleated the tumor, and then restored the organ to its proper form. The tumor sometimes occludes the os, and fetid pus from necrosis of the growth is imprisoned above it, giving rise to a suspicion of cancer.

Dr. BAER thinks Monsel's solution may have caused the high temperature; vinegar would have been a better hæmostatic, and it is also an antiseptic. From the appearance of the specimen, a portion of the adventitious growth seems to have been left behind, and it would be interesting to know the history of the stump.

Dr. PARISH has removed many fibroids of various sizes, and sometimes with degenerated tissues and noisome odors. The rapid recovery of Dr. Montgomery's patient was remarkable. It is much to be regretted when any portion of the tumor is left, as necrotic change is rapid and decided in such tissue, and there is danger of blood-poisoning. The pedicle, however, generally shrinks and disappears.

Dr. GOODELL remarked that this tumor appeared to be sessile and had been wholly removed. The pedicle proper is usually simply mucous membrane without adventitious tissue, and it makes very little difference if some of it is left behind, as it shrivels away and is absorbed.

Dr. ALLEN sometimes regretted that he was compelled to leave a portion of pedicle or tumor in the uterus; but he has never seen any bad consequences follow it. He prefers vinegar to iron as a hæmostatic, and considers it as good an antiseptic as carbolic acid.

Dr. MONTGOMERY remarked that the wire evidently brought away all the tumor. There

was no evidence of any remnant on examination to-day. In one case a portion of tumor or pedicle was unavoidably left, and he removed it some time afterwards by means of a tenaculum. He wounded his finger in doing so and suffered from septicæmia. The woman had an attack of cellulitis.

W. H. H. GITHENS,
Secretary.

REVIEWS AND BOOK NOTICES.

ANNUAL REPORT OF THE SUPERVISING SURGEON-GENERAL OF THE MARINE HOSPITAL SERVICE OF THE UNITED STATES FOR THE FISCAL YEAR 1884.

The report of the operations of the Marine Hospital Service for the year 1884 is contained in a volume of over three hundred pages. Forty-four thousand seven hundred and sixty-one patients received treatment during the past year,—thirteen thousand and seventy-eight were hospital patients, and thirty-one thousand six hundred and seventy-three were dispensary patients.

The expenditures for the past year were nearly five hundred thousand dollars, showing something of the importance of the service.

The hospital tax which has heretofore been the support of the Service has been abolished, and in its place support has been attempted by the receipts from the duties on tonnage. It was expected that these duties would more than cover the expenses of the Service, but a deficiency instead will amount to at least one hundred and seventy-five thousand dollars.

A very instructive decision by Judge Clarke, concerning the obligations of owners of vessels to seamen, is given. It is held that "a sailor injured in port, while in the performance of his duties as an employé of a vessel, is not obliged to go to a hospital, and that the necessary expenses for his care and treatment while injured in his lawful employment is a charge on the vessel, and the Marine Hospital Service is 'simply auxiliary' to the ancient maritime law which provides that seamen injured in the ship's service have the right to be cared for at the ship's expense."

New regulations for the government of the Service have been completed within the past year.

The physical examination of seamen can now be systematically carried on under the regulations of the Commissioner of Navigation. The Service also furnishes pilots with careful examinations for color-blindness and issues the necessary certificates. Applicants for admission into revenue marine, light-house, and life-saving stations can also receive examination by the medical officers of the Marine Hospital Service. The Surgeon-General recommends that, besides the examination for color-blindness in pilots, further examination and tests be made for acuteness of vision and hearing. This recommendation, in view of the many recent disasters caused by failure in these points, is an important one, and it is to be hoped will be approved—and carried out.

For the protection so necessary against the spread of smallpox, excellent provisions, so far as possible, have been made, and all medical officers receive abundant supplies of fresh, genuine vaccine virus.

All officers and crews of vessels can receive vaccination free of charge. This excellent provision is opposed by some steamboat captains, because it involves the loss of time in their employés incident to the sore arm which follows successful vaccination.

The perils of winter navigation are referred to, and the severe weather of last winter, which passed over so much of our country during the month of January, caused two hundred and thirteen cases of frost-bite to be treated by the Service. These cases were so severe as to require three capital operations, one each of leg, ankle, and foot, and fifteen minor amputations. The hospitals required extra supplies to accommodate the unusual number admitted on this account. This one experience must be a sufficient proof of the importance of the Service and the justice of affording every possible facility for the humane care of our fast dispersing seamen. New hospitals have been built at Cairo, Illinois, Cincinnati, Ohio, New Orleans, Louisiana, and Baltimore, Maryland.

The management of the various hospitals scattered throughout the country from Maine to California, considering the limited funds at the disposal of the Surgeon-General, requires the greatest skill and foresight, and this Dr. Hamilton has accomplished in the face of all obstacles and in a manner which deserves the highest praise. The executive ability which he has displayed in this direction at least entitles him to the confidence of the administration, and few men who had not received a military training could handle so great an undertaking successfully.

The United States Quarantine Service still remains under the officers of the Marine Hospital Service. It is in the proper management of this department that the Surgeon-General must find the greatest obstacles. The funds for carrying on this work are very limited, and the recommendations of the Surgeon-General do not meet with the prompt attention that they should. Untiring energy and skill have been used to make this extra duty successful, and much good has been accomplished. It is hoped that another year this department will be more efficient, and that all the recommendations of Dr. Hamilton will be adopted. The system of reports from foreign countries is carefully carried out, and is of great value. In the present outbreak in

Canada, the value of a trained Quarantine Service is readily recognized. The work of the Service is a direct benefit to our feeble commerce, and if any hope of renewed life exists the importance of the Marine Hospital Service must increase. In no case can it diminish, and to fortify those who are now skilled in its management is an act of simple justice.

The Report contains valuable statistical matter occupying over sixty pages, followed by an interesting report of surgical operations and selected cases from hospital practice. Drs. Austin, Bryan, Armstrong, and Stewart contribute some very important papers. There is also a section of reports of fatal cases with autopsies, and a very instructive chapter on "Yellow-Fever Epidemics." A report on the sanitary condition of Vera Cruz, Mexico, by Dr. Mainegra, and another on Pensacola and vicinity by Dr. Bouvier, are also very instructive. Some reports from United States consuls on the European cholera epidemic of 1884 close the volume.

The Report, on the whole, is excellent, and a credit to the Supervising Surgeon-General, who has worked so faithfully to elevate the Service and make its operations valuable and efficient. W. T. P.

A System of Practical Medicine by American Authors. Edited by William Pepper, M.D., etc.; assisted by Louis Starr, M.D. Volume III.—Diseases of the Respiratory, Circulatory, and Hæmatopoietic Systems. Philadelphia, Lea Brothers & Co., 1885. 8vo, sheep. Pp. 1032.

This volume is more comprehensive, and, as a rule, the individual articles which it contains are more compendious, than some of those which have previously been issued.

It contains articles from twenty-seven contributors upon forty-five subjects: twenty-nine upon diseases of the respiratory system; twelve upon diseases of the circulatory system; and four upon diseases of the blood and hæmatopoietic system. Two posthumous articles appear from the pen of the late Prof. Elsberg, upon diseases of the larynx and trachea respectively.

Among the papers especially deserving mention are those by Austin Flint, M.D., on "Pulmonary Phthisis (Fibroid Phthisis, or Chronic Interstitial Pneumonia);" by Harrison Allen, M.D., on "Diseases of the Nasal Passages;" by Carl Seiler, M.D., on "Laryngoscopy and Rhinoscopy;" by Abraham Jacobi, M.D., articles on "Acute Catarrhal Laryngitis" and "Pseudo-Membranous Laryngitis;" by N. S. Davis, M.D., on "Diseases of the Bronchi;" by Alfred Loomis, M.D., on "Croupous Pneumonia;" by Frank Donaldson, M.D., on "Diseases of the Pleura;" by E. T. Bruen, M.D., on "Syphilitic Diseases of the Lung, Pneumokoniosis, Cancer and Hydatids of the Lung;" and by the editor, on "Croupous Pneumonia." Among those upon Disorders of the Circulatory Apparatus are to be found contributions by J. M. Da Costa, M.D., on "Diseases of the Pericardium;" by Alfred L. Loomis, M.D., on "Endocarditis and Cardiac Valvular Disease;" by William Osler, M.D., on "Diseases of the Substance of the Heart;" by Morris Longstreth, M.D., on "Cyanosis and Congenital Anomalies;" by Beverly Robinson, M.D., on "Cardiac Thrombosis;" by Austin Flint, M.D., on "Neuroses of the Heart;" by John B. Roberts, M.D., on "The Operative Treatment of Pericardial Effusions;" by Andrew H. Smith, M.D., on "Diseases of the Veins, and on the Caisson Disease;" by G. M. Garland, M.D., on "Diseases of the Aorta;" by Elbridge G. Cutler, M.D., on "Diseases of the Coronary and other Arteries;" and by E. T. Bruen, M.D., upon "Diseases of the Mediastinum."

The third series of articles are upon "Diseases of the Blood and Blood-Glandular System," by William Osler, M.D.; on "Diseases of the Spleen," by I. E. Atkinson, M.D.; on "Diseases of the Thyroid Gland," by D. Hayes Agnew, M.D.; and on "Simple Lymphangitis," by Samuel C. Busey, M.D. A Table of Contents and a good Index are contained in the volume.

In the article by Dr. W. H. Geddings on "Hay-Asthma," which otherwise is an excellent *résumé* of the subject, it seems strange to find no mention whatever of the work of Mackenzie of Baltimore or of Sajous of Philadelphia, who have probably done more than any others towards placing the operative treatment of the affection upon a scientific basis. In several of the articles the terminology of the United States Pharmacopœia is not always adhered to; but, in mentioning such small oversights, we merely emphasize the expression of the general excellence of the work, a complete review of which would require more space than we have at our command. The book is uniform with the others, which in typography and press-work are all that can be desired. F. W.

A Treatise on Practical Chemistry and Qualitative Inorganic Analysis. By Frank Clowes, D.Sc. Third American, from the fourth English edition. 14+376 pp. 12mo. Philadelphia, Lea Brothers & Co.

For the third American edition of a laboratory guide which has met with much favor in this country, the author has prepared a special preface. The book has been enlarged, and is arranged in seven sections. I., the preparation and use of apparatus; II., experiments illustrating the preparation and properties of certain gases and liquids; III., analytical operations; IV., analytical reactions; V., analysis of simple substances containing one metal and one acid radical; VI., full analytical course and tables; VII., laboratory fittings, apparatus, chemicals, and reagents.

The plan is good, and the new edition is unquestionably an improvement, but there are some grave errors in logical sequence,—the first requisite of an elementary book. What idea can the student form of chemical equations until some information of the notation involved in those equations is imparted? Yet, on page 16, we learn that oxygen is set free "as shown by the following equation," and equations are freely used in Section II., although chemical notation is not mentioned before page 73, in Section IV. On page 94 we are told that "the dashes following the symbol (Fe) denote the number of chlorine atoms, or their equivalent, which are combined with one atom of Fe in its compounds," but we look vainly for the import of "the equivalent" of chlorine atoms.

The analytical methods given are usually good, and a pupil having a previous knowledge of general chemistry or a good teacher may make fair progress by the aid of the book, but it is hardly adapted as a text-book for beginners who must learn only by personal experience.

Section VII., on Laboratory Fittings, contains much useful information and valuable hints for teachers and laboratory directors.

W. H. G.

NEW BOOKS.

LESSONS IN HYGIENE. An Elementary Text-Book on the Maintenance of Health. With the Rudiments of Anatomy and Physiology, and the Treatment of Emergent Cases. Comprising also Lessons on the Action of Stimulants and Sedatives on the Brain and Nervous System. Adapted for Common Schools. By JOHN C. CUTTER, B.S., M.D. Illustrated. Philadelphia, J. B. Lippincott Company. 1885. Pp. 180.

VON ZIEMSSEN'S HAND-BOOK OF GENERAL THERAPEUTICS. In Seven Volumes. Vol. I. Introduction by PROFESSOR H. VON ZIEMSSEN. On the Dietary of the Sick and Dietetic Methods of Treatment. By PROFESSOR J. BAUER. On the Koumiss Cure. By DR. STANGE. Translated from the German by EDWARD F. WILLOUGHBY, M.D. (Lond.). New York, William Wood & Co., 56 and 58 Lafayette Place. 1885. Pp. 408.

Vol. II. Antipyretic Methods of Treatment. By PROFESSOR TH. JÜRGENSSEN. Epidermic, Endermic, and Hypodermic Administration of Medicines. By PROFESSOR A. EULENBURG. With Twelve Illustrations. Translated by MATTHEW HAY, M.D., of Aberdeen. Pp. 511.

Vol. III. Respiratory Therapeutics. By PROFESSOR M. J. OERTEL, M.D., of Munich. Translated by J. BURNEY YEO, M.D. Pp. 769.

A TEXT-BOOK OF MEDICAL PHYSICS. For the Use of Students and Practitioners of Medicine. By JOHN C. DRAPER, M.D., LL.D. With Three Hundred and Seventy-seven Illustrations. Philadelphia, Lea Brothers & Co. 1885. Pp. 733.

THE TEN LAWS OF HEALTH; OR, HOW DISEASES ARE PRODUCED AND PREVENTED; AND FAMILY GUIDE TO PROTECTION AGAINST EPIDEMIC DISEASES AND OTHER DANGEROUS INFECTIONS. By J. R. BLACK, M.D. Philadelphia, J. B. Lippincott Company. 1885. Pp. 413.

POISONS: THEIR EFFECTS AND DETECTION. A Manual for the Use of Analytical Chemists and Experts. With Introductory Essay on the Growth of Modern Toxicology. By ALEXANDER WYNTER BLYTH, M.D., etc. With Tables and Illustrations. Vols. I. and II. New York, William Wood & Co., 56 and 58 Lafayette Place. 1885. Pp. 333—668.

A TREATISE ON ASIATIC CHOLERA. Edited and Prepared by EDMUND CHARLES WENDT, M.D., in association with DRS. JOHN C. PETERS, of New York; ELY MCCLELLAN, U.S.A.; JOHN B. HAMILTON, Surgeon-General United States Marine Hospital Service; and GEORGE M. STERNBERG, U.S.A. Illustrated with Maps and Engravings. New York, William Wood & Co., 56 and 58 Lafayette Place. 1885. Pp. 403.

ON RENAL AND URINARY AFFECTIONS. By W. HOWSHIP DICKINSON, M.D., etc. Miscellaneous Affections of the Kidneys and Urine. New York, William Wood & Co., 56 and 58 Lafayette Place. 1885. Pp. 343.

CANCER: A STUDY OF THREE HUNDRED AND NINETY-SEVEN CASES OF CANCER OF THE FEMALE BREAST. WITH CLINICAL OBSERVATIONS. By WILLARD PARKER, M.D. New York and London, G. P. Putnam's Sons. 1885. Pp. 61.

LECTURES ON DISEASES OF THE NERVOUS SYSTEM, ESPECIALLY IN WOMEN. By S. WEIR MITCHELL, M.D. Second Edition, Revised and Enlarged. With Five Plates. Philadelphia, Lea Brothers & Co. 1885. Pp. 283.

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INEBRIISM: A PATHOLOGICAL AND PSYCHOLOGICAL STUDY. By T. L. WRIGHT, M.D. Columbus, Ohio, William G. Hubbard. 1885. Pp. 222.

LARYNGOSCOPY AND RHINOSCOPY IN THE DIAGNOSIS AND TREATMENT OF DISEASES OF THE THROAT AND NOSE. By PROSSER JAMES, M.D. Fourth Edition, Enlarged. Illustrated with Hand-Colored Plates. New York, William Wood & Co., 56 and 58 Lafayette Place. 1885. Pp. 223.

MEDICAL THOUGHTS OF SHAKESPEARE. By B. RUSH FIELD, M.D. Second Edition. Revised and Enlarged. Easton, Pennsylvania, Andrews & Clifton, Publishers. 1885. Pp. 86.

AN INTRODUCTION TO THE STUDY OF THE DISEASES OF THE NERVOUS SYSTEM: BEING LECTURES DELIVERED IN THE UNIVERSITY OF EDINBURGH DURING THE TERCENTENARY YEAR. By THOMAS GRAINGER STEWART, M.D. Philadelphia, J. B. Lippincott Company. 1885. Pp. 237.

A TREATISE ON NERVOUS DISEASES; THEIR SYMPTOMS AND TREATMENT. A Text-Book for Students and Practitioners. By SAMUEL G. WEBBER, M.D., etc. New York, D. Appleton & Co., 1, 3, and 5 Bond Street. 1885. Pp. 415.

TRACHEOTOMY IN LARYNGEAL DIPHTHERIA; AFTER-TREATMENT AND COMPLICATIONS. By ROBERT WILLIAM PARKER, M.D. Second Edition, Revised and Considerably Enlarged. London, H. K. Lewis, 136 Gower Street, W.C. 1885. Pp. 124.

URINARY AND RENAL DERANGEMENTS, AND CALCULOUS DISORDERS. HINTS ON DIAGNOSIS AND TREATMENT. By LIONEL S. BEALE, M.D. Philadelphia, P. Blakiston, Son & Co., 1012 Walnut Street. 1885. Pp. 356.

BERLIN AS A MEDICAL CENTRE: A GUIDE FOR AMERICAN PRACTITIONERS AND STUDENTS. By HORATIO R. BIGELOW, M.D., etc. (Reprinted from the *New England Medical Monthly*.) Sandy Hook, Connecticut. New England Publishing Company. 1885. Pp. 117.

A TREATISE ON PRACTICAL CHEMISTRY AND QUALITATIVE INORGANIC ANALYSIS. Adapted for Use in the Laboratories of Colleges and Schools. By FRANK CLOWES, D.Sc. Lond. With Illustrations. From the Fourth English Edition. Philadelphia, Lea, Brothers & Co. 1885. Pp. 376.

THE TREATMENT OF OPIUM-ADDICTION. By J. B. MATTISON, M.D. New York and London, G. P. Putnam's Sons. 1885. Pp. 49.

ELEMENTS OF MODERN MEDICINE; INCLUDING PRINCIPLES OF PATHOLOGY AND THERAPEUTICS. WITH MANY USEFUL MEMORANDA AND VALUABLE TABLES FOR REFERENCE. Designed for the Use of Students and Practitioners of Medicine. By R. FRENCH STONE, M.D. New York, D. Appleton & Co., 1, 3, and 5 Bond Street. 1885. Pp. 368.

A GUIDE TO SANITARY HOUSE-INSPECTION: OR, HINTS AND HELPS REGARDING THE CHOICE OF A HEALTHFUL HOME IN CITY OR COUNTRY. By WILLIAM PAUL GERHARD, C.E. New York, John Wiley & Sons. 1885. Pp. 138.

THE USE OF THE MICROSCOPE IN CLINICAL AND PATHOLOGICAL EXAMINATIONS. By Dr. CARL FRIEDLANDER. Second Edition, Enlarged and Improved, with Chromo-Lithograph. Translated, with Permission of the Author, by HENRY C. COE, M.D. New York, D. Appleton & Co., 1, 3, and 5 Bond Street. 1885. Pp. 195.

MASSACHUSETTS EMERGENCY AND HYGIENIC ASSOCIATION. Six Lectures upon School Hygiene. Delivered, under the Auspices of the Massachusetts Emergency and Hygienic Association, to Teachers in the Public Schools. Boston. Published by Guire & Co. 1885. Pp. 193.

NEW REMEDIES AND CLINICAL NOTES.

IODOFORM COLLODION IN NEURALGIAS.—Dr. William Browning, of Brooklyn, in the October number of *The American Journal of the Medical Sciences*, gives his experience with this remedy for external application, together with notes on the preparation itself, and a brief study of its action. The strength usually employed is one part of iodoform to fifteen of collodion. A half-ounce is usually sufficient for any ordinary single application. Dr. Browning has found it most effective when painted on in very thick layers, which may be conveniently done with the usual camel's-hair brush. As soon as one coating becomes a little firm another is applied, and so on until it appears to have an average thickness of half a millimetre. In the neuralgic cases a cure, when effected, was usually accomplished with one or two applications.

The class of troubles found most amenable to this treatment was narrowly localized neuralgias, especially when corresponding to some particular nerve and not dependent on any demonstrable lesion. In fact, if a neuralgia, or what is thought to be one, proves intractable to this means, we should doubt its being a purely functional affection, and look carefully for some tangible cause. It has thus a certain diagnostic, as well as a therapeutic, value. Several times its complete or partial failure has led to a more searching and successful examination. Even in such cases much temporary relief is often afforded.

Supraorbital neuralgias, even of malarial origin, particularly if the miasmatic infection dates back some time, seem quite amenable to this treatment. Of course it is not recommended as a substitute for quinine here, but only as an adjuvant where the latter fails or acts too slowly.

EFFECTS OF PEPSIN IN LARGE DOSES.—Dr. Rassmann reports to the *Medical Record* (p. 346) the case of a man suffering with dyspepsia, for whom pepsin was ordered, fifteen grains after each meal, to be taken with a dose of hydrochloric acid. The patient, in order to test the effects of the remedy, took twenty powders, or five drachms of pepsin, in one dose, just before retiring. The effects are thus described:

"In about an hour he was seized with an intense burning pain in the epigastrium, accompanied by nausea, and three hours later with violent colicky pains and diarrhœa. These symptoms continued until nearly noon of the following day, when they disappeared, leaving only a moderate amount of nausea, burning in the epigastrium, and a feeling of exhaustion. There was no vomiting. . . . . Nothing had been taken to counteract the effects of the drug. The pepsin had been procured from a reliable apothecary, and there was no reason to suspect that it was not pure and of full strength. The solution of hydrochloric acid was not touched."

[Although not so stated, it was, in all probability, saccharated pepsin which was taken. It would have been interesting to determine how long the preparation of pepsin had been made, and also to have had some of the pepsin examined, to detect possible adulteration or the presence of ptomaines.]

HYDRONAPHTHOL: A NEW ANTISEPTIC.—Dr. George R. Fowler, in a communication to the *New York Medical Journal*, speaks highly of hydronaphthol as an antiseptic agent, which in efficiency is only surpassed by mercury bichloride. It is soluble in cold water to the extent of one part in two thousand, in which strength it will not destroy germs, but it prevents the development of spores. From some comparative experiments, it was determined that "as an antiseptic it is about one-fifth as powerful as the mercury bichloride; from one and a half to double the strength of iodine; four times as strong as sulphuric acid; at least twelve times as efficient as carbolic acid; thirty times as potent as salicylic acid, when sodium biborate is added to the latter (for the purpose of increasing its solubility) in the proportion of equal parts of each; thirty times as powerful as both boric acid and ferric sulphate; sixty times as strong as sodium biborate; and six hundred times as strong as alcohol."

Hydronaphthol solution may be used for irrigation in the spray, and for washing instruments and the hands of the surgeon, and with wood-wool, sawdust, and other dressings. The crystals are soft and have especial advantages for making antiseptic gauze, and a good substitute for iodoform, as a dressing-powder, is obtained by adding hydronaphthol to magnesium carbonate in the proportion of two to one hundred.

STRYCHNINE IN SPINAL AFFECTIONS.—Dr. Landon Carter Gray, in the October number of *The American Journal of the Medical Sciences*, reports five cases which, as far as they go, demonstrate that strychnine was not well borne by two cases of severe acute myelitis, or by two subacute cases of mild poliomyelitis anterior; that one-twenty-fifth of a grain, continued for four days in a case of trans-

verse myelitis with early extension to the lateral columns, given three months after onset, suddenly induced alarming toxic symptoms; that one chronic case of general myelitis of traumatic origin was greatly benefited, as was also a case of general myelitis in which the onset had been gradual; that in five cases of progressive muscular atrophy it acted as a remarkable stimulant; that, as Dr. Weir Mitchell has indicated, it was decidedly beneficial in cases of neurasthenia, which, after being treated by some eight to ten weeks of rest and forced feeding, were taken out of bed, although it failed to agree with three cases of neurasthenia treated in the ordinary way.

EFFECTS OF A LARGE DOSE OF TINCTURE OF DIGITALIS.—A woman swallowed three fluidounces of tincture of digitalis. Within a few minutes intense vomiting set in and a large portion of the drug was rejected, this being aided by emetics administered at the Hôpital Saint-Louis, where the patient was at once carried. Subsequently two sets of symptoms appeared: those attributable to gastric irritation (vomiting, pain), and those manifested in the circulation (irregularity and slowness of the pulse, violent delirium, cutaneous hyperæsthesia, muscular hemiparesis, vertigo, amblyopia, and xanthopsia). The treatment was stimulating: hypodermic injections of ether, ammonium carbonate, strychnine, and, later, frictions, electricity, atropine, and a carefully regulated diet. Recovery was complete on the eighth day.—*Le Concour Médical* and *Med. and Surg. Rep.*

CHLOROFORM FOR TAPE-WORM. — After failing with male fern, Dr. Perry, of San Francisco, in the case of a man who had suffered with tape-worm for eight years, succeeded in dislodging it in the following manner: The patient was made to fast from noon of the preceding day, and only permitted to drink lemonade. At seven o'clock in the morning he took one drachm of chloroform in one ounce of mucilage, and one hour later an ounce of castor oil. The patient was in considerable stupor shortly after taking the medicine, which stupor lasted three or four hours. He was a large man, weighing one hundred and eighty pounds. Dr. Perry thinks that the dose of one drachm of chloroform should not be exceeded.

CHLORAL IN TETANUS INFANTUM.—In the *Dublin Journal of Medical Science* for September, Mr. Henry May reports a case of convulsions occurring on the seventh day after birth of a female child who at birth had been a strong, healthy infant. Cause of convulsions unknown. The treatment was as follows: the food consisted of a teaspoonful of brandy, one-third of a teacupful of fresh cow's milk mixed with two-thirds of warm water, slightly sweetened. Of this the mother managed to give about three teacupfuls in the twenty-four hours, and a teaspoonful of the following was ordered every third hour:

℞ Chloral. hydratis,
Potass. bromid., āā gr. xvj;
Ext. ergot. liq. (Sorg's), ℥xlviij;
Glycerini, ʒiij;
Aquæ destillatæ, ad fʒiv. M.
Fiat mistura.

The treatment was continued, though less actively as the symptoms improved, for fourteen days, when the child took the breast again and afterwards gradually recovered.

AQUAPUNCTURE AS A SUBSTITUTE FOR INJECTIONS OF COCAINE.—Dr. W. T. Halstead reminds us of the fact that has recently been lost sight of, that the skin can be anæsthetized by subcutaneous injections of water, and he has used it for local anæsthesia as a substitute for cocaine in minor surgical operations. The anæsthetic effect is limited to the boundary of the original bloodless wheal, but does not always vanish as soon as hyperæmia supervenes.—*N. Y. Med. Journal.*

BOROGLYCERIDE IN PSORIASIS.—Dr. Chas. Roberts, in an irritable and obstinate case of psoriasis, used boroglyceride locally with very gratifying results, and has since used it in other cases with the same effect.—*Brit. Med. Journal.*

WIRING BONES.—An ingenious modification of the procedure and some new instruments for wiring bones together are described in a communication to the *Medical Record* for September 26, by William F. Fluhrer, M.D.

MISCELLANY.

MESSRS. PARKE, DAVIS & CO. announce that they will furnish a collection of all crude drugs of vegetable origin recognized in the United States Pharmacopœia, and, in addition, some unofficinal remedies in common use. The specimens number two hundred and eighty-eight in all, contained in a black walnut case, in wooden boxes, each bearing a label with its number, by which it can be identified in the alphabetically-arranged index. If the manufacturers receive orders from a sufficient number (fifty subscribers), they will furnish these cabinets at ten dollars apiece.

As a help to the study of materia medica and pharmacognosy, this collection would be of great value to students.

DRS. W. H. WARDER and E. E. Montgomery have opened a private hospital for diseases of women at 1409 Thompson Street, Philadelphia.

NOTES AND QUERIES.

NOTICE TO OCULISTS AND PUBLISHERS ON OCULISTIC MATTERS.

Having taken charge of reporting for the *Revue Générale d'Ophthalmologie*, edited by Dr. E. Meyer, of Paris, and Dr. Dor, of Lyon, on the progress of ophthalmology in our country, I beg leave to request all authors and publishers of ophthalmic works and papers to send me copies or reprints of their respective publications, in order to enable me to give the most complete review of the current ophthalmic literature of this country in a periodical of the largest circulation among our profession. (Medical papers please copy.)

DR. M. LANDESBERG,
40 West Thirty-fourth Street, New York.

OBITUARY.

JOHN LIGHT ATLEE, M.D., one of the few ex-Presidents of the American Medical Association, and one of the most distinguished physicians of this country, died at his home in Lancaster, in this State, on the 1st inst., from an attack of pleurisy, after having been rendered almost an invalid from an attack of hemiplegia which occurred about two years ago.

Dr. Atlee was born in Lancaster, November 2, 1799, and was the son of Colonel William Pitt Atlee, of Revolutionary fame. He was graduated from the University of Pennsylvania in 1820, after five years' course of study. In his address as President of the American Medical Association, delivered in Cleveland two years ago, he gave many interesting reminiscences of the profession and medical teaching in Philadelphia in the first quarter of this century. In a long and useful life devoted to his profession, Dr. Atlee, although practising in his native city, acquired a reputation that was more than national. He was one of the originators of the Lancaster City and County Medical Society in 1843, and twice was its presiding officer. He assisted in forming the Pennsylvania State Medical Society in 1848, and was active in the organization, in 1847, of the American Medical Association, in each of which he was honored by being elected to the highest office.

Always warmly interested in matters of education, he was for forty years a school director, and a trustee of Franklin and Marshall College, in which institution he also filled the Chair of Professor of Anatomy and Physiology for many years. He was President of the Board of Trustees of the Home for Friendless Children, and of the State Lunatic Asylum at Harrisburg. He was a member of a number of scientific societies, including the American Gynæcological Association and the College of Physicians of Philadelphia. In co-operation with his eminent brother, Dr. Washington L. Atlee, he labored successfully in establishing the operation of ovariotomy upon a firm foundation, and in 1843 performed the first operation of double ovariotomy upon a patient who survives him. As a surgeon he was skilful and successful, and had won a well-earned reputation in the surgery of the abdomen before modern methods, with their rigid rules, had been devised. Dr. Atlee was not a frequent contributor to medical journalism, but this was attributable to his great modesty, and not to want of ability as a writer or lack of material and opportunity for observation.

Dr. Atlee was married, in 1822, to the eldest daughter of Hon. Walter Franklin, president judge of the courts of Lancaster and York Counties. His son, Walter F. Atlee, is a resident of Philadelphia.

Dr. John L. Atlee was a man with high ideals of duty, integrity, and professional honor. He served his generation well, and "bore without reproach the grand old name of gentleman."

OFFICIAL LIST

OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U.S. ARMY FROM SEPTEMBER 27, 1885, TO OCTOBER 10, 1885.

COLONEL T. A. MCPARLIN, SURGEON.—Directed to transfer his duties, and the public funds for which he is accountable as assistant medical purveyor, to Captain Henry Johnson, Medical Storekeeper, who will, in addition to his present duties, temporarily perform the duties of assistant medical purveyor, New York City. S. O. 223, A. G. O., September 29, 1885.

MAJOR D. G. CALDWELL, SURGEON.—Ordered from Fort Laramie, Wyoming, to Fort D. A. Russell, Wyoming. S. O. 97, Department of the Platte, September 28, 1885.

CAPTAIN J. H. BARTHOLF, ASSISTANT-SURGEON.—Ordered from Fort Ringgold, Texas, to Fort McIntosh, Texas, for duty as post-surgeon. S. O. 125, Department of Texas, September 28, 1885.

CAPTAIN DANIEL WEISEL, ASSISTANT-SURGEON.—To be relieved from duty at Camp at Rock Springs, Wyoming, and return to his proper station, Fort Fred Steele, Wyoming. S. O. 99, Department of the Platte, October 1, 1885.

CAPTAIN G. W. ADAIR, ASSISTANT-SURGEON.—Leave of absence extended one month. S. O. 232, A. G. O., October 9, 1885.

CAPTAIN VICTOR BIART, ASSISTANT-SURGEON.—Sick-leave of absence further extended six months, on surgeon's certificate of disability. S. O. 227, A. G. O., October 3, 1885.

CAPTAIN LOUIS BRECHEMIN, ASSISTANT-SURGEON.—Ordered from Fort D. A. Russell, Wyoming, to Fort Laramie, Wyoming. S. O. 97, Department of the Platte, September 28, 1885.

FIRST-LIEUTENANT G. E. BUSHNELL, ASSISTANT-SURGEON.—Granted leave of absence for one month. S. O. 215, Department of the East, October 6, 1885.

FIRST-LIEUTENANT C. N. B. MACAULEY, ASSISTANT-SURGEON.—Relieved from duty at Fort A. Lincoln, Dakota Territory, and ordered for duty at Camp Poplar River, Montana Territory.

FIRST-LIEUTENANT WILLIAM L. KNEEDLER, ASSISTANT-SURGEON.—When relieved from duty at Camp Poplar River, Montana Territory, by Assistant-Surgeon Macauley, to report to commanding officer, Fort Snelling, Minnesota, for duty.

S. O. 105, Department of Dakota, September 21, 1885.

FIRST-LIEUTENANT WILLIAM STEPHENSON, ASSISTANT-SURGEON.—Relieved from duty at Fort Niobrara, Nebraska, and ordered for duty at Camp at Rock Springs, Wyoming. S. O. 99, Department of the Platte, October 1, 1885.

FIRST-LIEUTENANT A. R. CHAPIN, ASSISTANT-SURGEON.—Leave of absence extended one month. S. O. 230, A. G. O., October 7, 1885.

FIRST-LIEUTENANT P. G. WALES, ASSISTANT-SURGEON.—Relieved from temporary duty at Boise Barracks, and ordered for duty at Fort Cœur d'Alene, Idaho. S. O. 160, Department of Colorado, September 21, 1885.

FIRST-LIEUTENANT C. B. EWING, ASSISTANT-SURGEON.—Relieved from duty at Fort Stanton, New Mexico, and ordered for duty at Fort Leavenworth, Kansas. S. O. 147, Department of Missouri, September 25, 1885.

LIST OF CHANGES IN THE MEDICAL CORPS OF THE U.S. NAVY FROM SEPTEMBER 27, 1885, TO OCTOBER 10, 1885.

SURGEON WILLIAM H. JONES.—To Navy-Yard, League Island, Pennsylvania, October 15, as the relief of Medical-Inspector M. Bradley.

MEDICAL-INSPECTOR MICHAEL BRADLEY.—Detached from Navy-Yard, League Island, Pennsylvania, October 15, and placed on waiting orders.

ASSISTANT-SURGEON THOMAS OWENS.—To Naval Station, New London, Connecticut, as the relief of Surgeon William A. Corwin.

SURGEON WILLIAM A. CORWIN.—Detached from Naval Station, New London, Connecticut, and ordered to the U.S.S. "Adams" October 31.

SURGEON A. F. MAGRUDER.—Ordered to the U.S.S. "Yantic" without delay, as the relief of Surgeon H. L. Law.

SURGEON H. L. LAW.—Detached from the U.S.S. "Yantic," and wait orders.

SURGEON W. J. SIMON.—Detached from the Naval Academy October 1, and wait orders.

SURGEON M. C. DRENNAN.—Detached from the Naval Academy October 1, and wait orders.

PASSED ASSISTANT-SURGEON ARTHUR G. CABELL.—To the U.S.S. "Adams," October 31.

SURGEON GEORGE A. BRIGHT.—To U.S.S. "Brooklyn."

ASSISTANT-SURGEON HENRY B. FITTS.—To Naval Hospital, New York.

PASSED ASSISTANT-SURGEON JOHN H. HALL.—Detached from Naval Hospital, Mare Island, California, and ordered to the "Hartford."

PASSED ASSISTANT-SURGEON ROBERT SWAN.—Detached from Naval Hospital, New York, and ordered to the "Brooklyn."